Department of
Plant Pathology

University of
Wisconsin- Madison

Winter 2008 / 2009

The Pathogen

A History of Plant Pathology 559

For over 40 years, Plant Pathology 559, the field course now called "Diseases of Economic Plants," has remained a quintessential experience for plant pathology graduate students. A sort of rite of passage, the course allows students to see crops and diseases firsthand, and to meet agricultural professionals throughout Wisconsin. It also reminds aspiring plant pathologists of the importance of being in the field and keeping "one foot in the furrow."

Plant Pathology 559 began in 1965 as a result of a curriculum change within the department. Courses such as "Diseases of Field Crops," and "Diseases of Fruits," were rolled into a more basic course, "Physiology of Disease." In order to salvage the important material that might have been lost in the change, the department established a new field course offered in the summer, Plant Path 559.

The course was originally taught by Jack Berbee and Deane Arny. Later Arny took sole leadership. Many of the principles established in the early years of the course are still in place today, such as the importance of exploring the state to see the pathology of commodity-based plants "in action," which may or may not comply with what one reads in a text book.

Since Arny and Berbee, several other prominent faculty members have led the course, including Professors Albert Ellingboe, John Andrews, Douglas Maxwell, and Craig Grau. As Grau retires this year, the torch will be passed to Doug Rouse, who will be lead professor in 2009.

"Arny, Ellingboe… they tried to make it more than Plant Pathology. I think that's so important. Arny, he's the master. He's a wonderful plant taxonomist, he knows every plant that ever was. And he knows the state. I cannot compare to Deane on that," says Craig Grau, who most recently taught the course.

Alumnus Paul Tooley, who took Plant Pathology 559 as a new graduate student around 1979, writes, "Drs. Arny, Grau, and others team-taught the class and each part was an adventure. We rode in the bus to the field and saw lots of diseases. I especially remember the field trip to Door County to see the fruit tree diseases and we all had a fish boil in Dr. Dewey Moore's backyard in beautiful surroundings. And Mrs. Arny's cookies were always a real treat."

The charge of the professor who leads 559 is usually a considerable task: they must set up transportation each week, coordinate the schedule of instructors, and also play chauffeur, driving the class (approximately 10-18 students each year) across the state to visit private companies, state facilities, or private farms. While Arny was lead professor, the department acquired access to a large white bus, fondly called 'The White Whale,' for transport across the state. After the bus finally gave out, lead professors began using a 15-passenger van and mini-van.

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Notes from the Chair

When graduate student candidates or faculty candidates visit the department, I make a point of giving them a copy of "One Foot in the Furrow," a chronicle of our department's history from 1910 to 1985. We are justifiably proud of that history -- it is filled with a remarkable list of achievements and shows how we have led the discipline in a vast number of ways.

A long history can be a burden if we use it to cling to the "good old days" and resist change or innovation. What I see in the department is different: our history provides us with a strong foundation and pride which propels us into the future. As scientists and educators we strive to be creative and productive in ways that build on our legacy and develop our successes from earlier times. Our history, therefore, creates a keener sense of purpose.

Of course, each generation confronts its own set of challenges and opportunities. As I write this we are still coming to grips with a serious downturn in the economy, the total effects of which are yet to be told. No doubt all of us will experience these in varying degrees in our personal and professional lives.

UW-Madison is addressing these challenges under the stewardship of a new chancellor, Biddy Martin, who joined the campus last fall. Closer to home, in the department we welcome two new faculty members. Jim Kerns, our new turfgrass extension pathologist comes to us with a fresh Ph.D. from North Carolina State University, and his active research program has already garnered a handful of regional and international invitations to speak. Jeri Barak, who previously held a position with USDA in Albany, California, is an expert on plant-associated bacteria, including pathogens of plants and animals. When you think of *E. coli* or *Salmonella* outbreaks due to contaminated produce, Jeri's expertise comes to bear.

In the ebb and flow of departmental staffing, however, we've also seen the retirements of Walt Stevenson, Sally Leong, Bob Rand, Sarah Potts, and Vaughan James. We are grateful to them for their many years of support and wish them the very best in their retirement!

The department is engaging in a couple of novel ventures which we hope will yield great success. First, we have received permission from our college administration to bolster our virology expertise by hiring a new virologist. Because of fiscal limitations in the college, our department is providing the funding for this position for the first few years by using endowment monies. We are one of the few departments in the college that have the means to exercise such an option, and we are extremely fortunate to be able to proceed with this position.

In partnership with Entomology and Forest and Wildlife Ecology, we are in the process of forming the Russell Laboratories Administrative Service Center. This center provides IT services, mechanical and equipment services, student services, pre- and post-grant award support, and reception/secretarial support for all residents of Russell Labs. Although the center is still in its early days, it has attracted the attention of campus-level administrators as a model for the campus to use as as they seek to streamline processes.

In 2010 we'll celebrate our 100th anniversary as a department. Under the guidance of John Andrews, the Centennial Committee is actively planning a gala series of events. Come join us and see how we're marching into our second century, and share with us as we celebrate our rich history!

On Wisconsin!

Murray Clayton

Alumni Spotlight
A Conversation with Scott Adkins

Please tell me a little about your background...what you did before you were a student at UW-Madison, and what led you there, as well as your current work?

I grew up in Maryland as the son of parents who both were Extension agents with University of Maryland. My dad continued with Extension until he retired but my mom became a school teacher when we left Maryland's rural Eastern Shore for the Washington suburbs when my dad was transferred from a county office to campus. I was a 4-H member for ten years with major projects [in] horticulture, entomology and photography. This led me in those directions in college at Ohio State where I majored in Plant Pathology and continued for a master's degree on viruses of geraniums. I graduated with my MS on a Friday in June 1991, drove to Madison over the weekend and started summer session the following Monday. The first course in my Ph.D. program was Dr. Ellingboe's field course, 559, in which I met my future wife, Patchara Pongam, who was also a graduate student in the department.

I chose UW-Madison over other Plant Path departments because of its stellar reputation in general and in virology in particular. The campus was beautiful and the winter was much more intense than Maryland or Ohio, a fact I first observed on visiting in December 1990!

Can you tell me about coming to UW-Madison and your studies in the Plant Pathology department?

I started a rotation with Tom German studying tomato spotted wilt virus (TSWV) and never left – either Tom's lab or TSWV, a pathogen I have continued to study ever since.

I have many fond memories of night and weekend study sessions for some of the more rigorous courses – Plant Bacteriology, Plant Path 710, Prokaryotic and Eukaryotic Molecular Genetics, etc.

Also many fond memories of nights and weekends in the lab getting "the result" necessary for some key piece of my Ph.D. research.

How has your work at UW-Madison influenced your current work?

After leaving UW-Madison in May 1996, I continued my tour of the Big 10 with a postdoc in the Biology Department at Indiana University where I studied the mechanism of RNA-depen-

(Continued on p. 13)

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Questions and orders can be sent to
Mapi Marquez marquezv@plantpath.wisc.edu

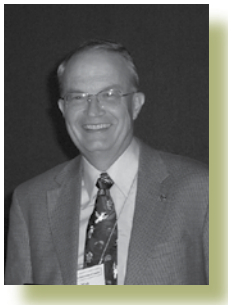
All proceeds support student activities.

Walt Stevenson Honored by Wisconsin Potato and Vegetable Growers' Association

Vegetable pathologist Walter Stevenson has been inducted into theWisconsin Potato & Vegetable Growers' Association Hall of Fame for his lifetime achievement in the development of the state's potato industry.

Stevenson was raised in New York and received his B.S. degree in 1968 from Cornell University and his Ph.D. degree in 1972 in plant pathology from the University of Wisconsin-Madison. He began his professional career in extension plant pathology as a faculty member at Purdue University in 1972. In 1979, he returned to Wisconsin where he was appointed as vegetable pathologist.

For the past 28 years his research and extension work has covered a wide array of crops in the state including potato, snap beans, peas, carrots, onions and mint, developing comprehensive disease management programs for these crops. Among Walt's many accomplishments is the development of a forecasting model for early blight disease of potato. The combination of this model with refined models for late blight forecasting and crop management models contributed by other members of the UW Extension potato and vegetable team led to the release of a succession of software packages for grower and IPM consultant use that included the 'Potato Disease Management,' 'Potato Crop Management' and 'Wisdom' software.



His research has contributed to numerous emergency and local fungicide labels, Experimental Use Permits and the early national registration of important disease management tools for potato and vegetable crops.

Walt also served on and advised numerous committees with the Wisconsin Potato and Vegetable Growers Association, Midwest Food Processors Association, Wisconsin Muck Growers' Association, Wisconsin Mint Board and other industry groups. During the course of his career he has made over 1,500 presentations at over 1,200 meetings attended by close to 100,000 growers and industry representatives.

This article was reprinted with permssion from eCALS, the newsletter for University of Wisconsin-Madison Faculty and Staff.

Walt Stevenson Retirement

In 2008, Walt Stevenson retired from the Department of Plant Pathology after 29 years in the field.

Friends, family, and fellow potatoheads gathered to honor Walt's achievements on February 9, 2008 at Blackhawk Country Club.

(Left) Judy and Walt Stevenson

(Above) Jeff Wyman, Walt Stevenson, and Larry Binning.

Welcome...
New Faculty Member: Jeri Barak

Jeri Barak is one of the newest faculty members in the Department of Plant Pathology at UW-Madison. Relocating from Berkeley, CA, she joined the department in August of 2008 as assistant professor in the area of food safety.

Barak describes coming into plant pathology by "circumnavigation." She grew up on a cattle farm in Texas, and then moved to the east coast to earn her Bachelor's of Science in Marine Biology at Boston University (BU), although she completed the degree at San Jose State University. Summers brought her back to the east coast, to live in Woods Hole, MA and work at BU's Marine Biological Laboratory. She stayed at BU to begin her Ph.D., but again returned to the west coast, to University of California-Davis, to earn a Ph.D. in plant pathology.

"I was a post-doc with Amy Charkowski at the [United States Department of Agriculture] /ARS in Albany, CA where I started working with human bacterial pathogens on plants. After about a year and a half, I found myself running my own research lab continuing my post-doc work," says Barak.

Now seven years later, Barak has brought her research to UW-Madison, and again in the same department as Charkowski, as the Food Safety Cluster hire in the Department of Plant Pathology.

Barak says, "The field has changed a lot in the last eight years. When I started, plant pathologists didn't believe that human bacterial pathogens were more than passive interlopers on plants. Now, our work has shown that *Salmonella* and pathogenic *E. coli* actively colonize plants.

According to Barak, her research focuses on the "molecular mechanisms that are utilized by human bacterial pathogens to colonize plants." Her work in the lab will also include studying interactions between plant and animal pathogens and their biology in plants, and conducting genetic studies of vegetable crop plants to identify resistance mechanisms that might be used against human pathogens.

She describes one of the things she enjoys most about the field of plant pathology as the range of research the area offers. "My field is wide open. There are so many unanswered questions; almost at every turn there's something to be examined. I like the expansiveness of such an endeavor. [It's] never boring," she says.

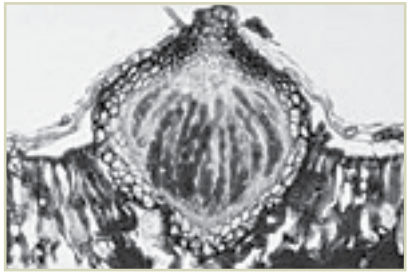
In coming to the department, Jeri says she is looking forward to working in a department that has the structure and willingness to support graduate students.

"My opinion is that without students a research program will die or turn in on itself as the only voice you hear is that of your own," she says. "Graduate students are the members of the lab who will argue with you and expand the directions of research."

Barak says she is looking forward to the culture change that Madison offers, and in anticipation of the move, her family sold their second car to become more dependent on biking as a means of transportation. She also enjoys having a neighborhood where there are many children for her daughter to play with.

Barak adds, "The department has been so welcoming and not just with the initial greetings. Everyone is willing to help out or send me in the right direction to find what I need."

Photos from the Field



Apothecium of *Venturia inaequalis*, the apple scab pathogen. This disease poses a major limitation to organic and conventional apple production in Wisconsin.

Vineyards are an increasingly common sight in Wisconsin. Did you know that the state has more than 40 wineries?

Recent Graduates... *Congratulations!*

ISMAEL BADILLO VARGAS ***Graduated August 2008***

Ismael E. Badillo Vargas graduated with his M.S. from the Department of Plant Pathology at the UW-Madison under the direction of Thomas L. German. His thesis was entitled *Exploiting Vector Specificity to Control Insect Pests and Virus Transmission*. He will work toward a Ph.D. at Kansas State University in the laboratory of Dr. Anna E. Whitfield, continuing in the same area of research.

ADAM HUEBERGER ***Graduated May 2008***

Adam Heuberger graduated with his M.S. from the Plant Breeding and Plant Genetics program at UW-Madison under the direction of Andrew Bent. His thesis was entitled *Using Nematode Demographics Assays in Functional Testing of Candidate Glycine max Resistance Genes to Heterodera glycines*. He is now working toward a Ph.D. at Colorado State University, studying plant-based functional foods for human health.

COURTNEY JAHN ***Graduated August 2008***

Courtney Jahn graduated with her Ph.D from the Department of Plant Pathology at UW-Madison under the direction of Amy Charkowski. Her thesis was entitled *Genes that Contribute to the Survival and Virulence of Dickeya dadantii*. She has accepted a position as a postdoc at Colorado State University in Fort Collins. The position entails using rice as a model plant to identify candidate genes involved in biomass accumulation in grasses. This should expedite improvement of biomass productivity of preferred biomass crops, such as switchgrass and Miscanthus.

MICHELE KOHOUT ***Graduated May 2008***

Michele Kohout graduated with her M.S. from the Department of Plant Pathology at the UW-Madison under the supervision of Ann MacGuidwin. Her thesis was entitled *Effect of Forage Pearl Millet (Pennisetum glaucum) on Population Densities of Pratylenchus Penetrans and Verticillium dahliae*.

KIMBERELY LESNIAK ***Graduated August 2008***

Kimberley Lesniak recently completed her M.S. degree in the Department of Plant Pathology at the UW-Madison under the direction of Walt Stevenson, studying the biocontrol of *Sclerotinia sclerotiorum* on snap beans. Her thesis was entitled *Population, Spatial Dynamics and Longevity of Coniothyrium Minitans in Wisconsin Commercial Snap Bean Fields*. Kim will begin her Ph.D. studies this fall with Dr. George Sundin, Department of Plant Pathology, Michigan State University.

ISABEL MUNCK ***Graduated May 2008***

Isabel Munck graduated with her Ph.D. from the Department of Plant Pathology at UW-Madison under the direction of Glen Stanosz. Her thesis was entitled *Influence of Pine Host Species, Geographic Location, and Site History on Inoculum Produced by Diplodia pinea and D. scrobiculata*. She has accepted a position as postdoc at the University of Nevada-Reno. The position entails working on projects that are investigating the effects of fuel reduction treatments and of anti- and de-icing salt applications to roads in the Lake Tahoe Basin on tree health.

Recent Graduates... *Congratulations!*

DIRK NETZ *Graduated August 2007*

Dirk Netz completed his M.S. Degree in the Department of Plant Pathology at the UW-Madison in December 2007 under the direction of John Andrews. His thesis was entitled *Symptomatic Seedlings as an Inoculum Source and Evaluation of Sanitation to Manage Diplodia Blight in Nursery Beds*. He is now working for United States Forest Service in Bend, Oregon.

ANGIE PELTIER *Graduated December 2007*

Angelique Peltier graduated with her Ph.D. degree from the Department of Plant Pathology at UW-Madison under the direction of Craig Grau. Her thesis was entitled *Environmental and biological factors affecting resistance and susceptibility to Sclerotinia sclerotiorum in soybean*. She has accepted a position as a Research Associate at the University of Wisconsin-Madison with Paul Esker and Craig Grau.

PETER ROGERS *Graduated December 2007*

Peter Rogers completed his Ph.D. degree in the Department of Plant Pathology at the UW-Madison under the direction of Walt Stevenson. His thesis was entitled *Diversity and Biology Among Isolates of Alternaria dauci Collected from Commercial Carrot Fields*. Peter is now working as a research pathologist with Nunhems Seed Inc. in Brooks, Oregon with a focus on onion and carrot breeding, emphasizing the development of disease resistance screens to identify resistance traits in these species. He was recently given global responsibility for phytopathology in onions and carrots with projects ranging from disease detection and diagnosis in carrot and onion seed production to research encompassing host resistance identification and improved epidemiological understanding of diseases of carrot and onions.

NATHAN SCHROEDER *Graduated August 2008*

Nathan Shroeder graduated with his Ph.D. from the Department of Plant Pathology at the UW-Madison under the direction of Ann MacGuidwin. His thesis was entitled *Behavioral Quiescence and Sensitivity to Exogenous Compounds in J2 Heterodera Glycines*. He has accepted a post-doctoral position at Rutgers University. The position entails the examination of male-mating behavior in the nematode, *Caenorhabditis elegans*.

JAMES SCOTT *Graduated August 2007*

James Scott graduated with his M.S. from the Plant Pathology program at University of Wisconsin-Madison under the direction of Nancy Keller. His thesis was entitled *Role of Ppo Dioxygenases in Aspergillus flavus Development and Aflatoxin Produciton*.

Welcome New Graduate Students!

Suhana Chattopadhyay, Ph.D. Program
David Cook, Ph.D. Program
Lingyun Hao, Ph.D. Program
Karen Lackermann, M.S. Program
Jeffrey Olsen, M.S. Program
Chantel Wilson, Ph.D. Program

What's Happening...
News from Near and Far

Paul Ahlquist spoke at the annual Deutsche Gesellschaft fur Virologie meeting in Heidelberg, Germany. As in past years, his research group continues its studies of virus replication and virus-host interactions in laboratories at the UW Institute for Molecular Virology, expanding the department's footprint on campus.

Amy Charkowski with some collaborators during a visit to the Dead Sea in Israel.

Deane Arny writes that he stays very busy "tending a garden, mowing the lawn, walking a mile each day, and so life goes on."

Orawan Chatchawankanphanich, Ph.D., with Maxwell in 1997, is now a senior research scientist at Kasetsart Univeristy in the Plant Genetic Engineering Unit, Nakhon Pathom, Thailand. She has continued to study geminiviruses and is involved in projects on characterization of geminiviruses in Thailand, and rDNA strategies for engineering resistance in tomato. Also, she is managing a project on tissue culture of teak and breeding a garden tomato for resistance to Tomato Yellow Leaf Curl Thailand Virus. In May 2008, she hosted Doug and Martha Maxwell and Luis Mejia for lectures at her University and toured with them from Bangkok to Chaing Mai.

Two of Amy Charkowski's graduate students, Maria del Pilar Marquez Villavicencio and Courtney Jahn, coincidentally dressed alike, with aphid traps to match!

Joe Curley accepted a position in November 2007 as a Soybean Association Geneticist with Syngenta Seeds in Slater, IA.

Craig Grau's program has maintained an emphasis on soybean pathology, but has a greater focus on host resistance and pathogen variability since the arrival of Paul Esker. Paul has assumed responsibility for research on fungicides and management practices to control soybean diseases. Studies on Sclerotinia stem rot and brown stem rot will continue, but the group plans to increase efforts on viruses. Bean Pod Mottle Virus is the most yield-limiting virus of soybean in the Midwest. The group will place greater emphasis on this virus by joining forces with colleagues at Iowa State University and the University of Illinois. The discovery of a "putative" source of resistance to BPMV will help determine this discovery, and if so, they'll study the genetics of inheritance of this trait. Another area of effort is to utilize BPMV as a tool to identify pathways and their governing genes that function in defense against soybean pathogens. Colleagues at Iowa State have designed a system that utilizes BPMV as a vector to introduce specific soybean genes into a soybean plant. Craig writes, "I never imagined I would be involved with a project that utilizes the power of gene silencing to study host resistance. Initially, we will focus on Sclerotinia stem rot and attempt to garner information on how a soybean plant defends itself against *Sclerotinia sclerotiorum*."

Craig Grau retired on December 30, 2008. There are multiple reasons for the decision: his desire for a change in scenery and daily activities. But he plans to continue a research program for a few years and to clean out files. More information to come.

Maya Haslett recently had a baby boy, Leif Allen Haug. Mother and child are doing well.

Sally Leong retired on June 6, 2008. She is keeping busy planning research on equine-assisted therapy for veterans with traumatic brain injury and post traumatic stress disorder, problems that face a large percentage of the 1.6 million veterans from the recent wars in Iraq and Afghanistan. At her farm, Sally is raising Spanish Mustang horses with the goal of using them for equine-assisted therapy. Sally is also interested in helping the Richland Center Sister City Project to solve agricultural and other social problems of villagers in the communities associated with the Chacocente Turtle Reserve in Nicaragua.

Douglas P. Maxwell is reducing his research activities in Russell Laboratories as he increases his international research on breeding tomatoes for resistance to *Ralstonia solanacearum* and begomoviruses in Guatemala and the Middle East. He still focuses his research in Russsell Labs on developing breeder-friendly PCR-based markers for resistance genes in tomato. One highlight this past year was taking his wife Martha, oldest granddaughter, Heidi (age 10), and her mother to Morocco. Martha and Doug also visited Gerd and Elisa

(Continued on next page)

What's Happening...
News from Near and Far

Douglas and Martha Mawell in Cairo, Egypt, 2006.

Haenssler in Germany in February and Orawan Chatchawankanphanich in Thailand in May.

Luis Mejia (Fulbright fellow in 1996 in Douglas Maxwell's lab) hosted an international meeting on Bacterial Wilt of tomatoes in Guatemala in June 2008. This meeting was attended by Caitilyn Allen and Doug Maxwell. Dr. Mejia retired from San Carlos University several years ago, but continues to breed tomatoes for combined resistance to *Ralstonia solanacearum* and begomoviruses for Guatemala.

Steven M. Millett, the last UW Plant Pathology graduate of the 20th Century (Maxwell Lab), is the Technical Advisor for Hummert International in St. Louis, MO. Hummert International, celebrating its 76th year in the horticulture industry, is a distributor of horticulture products and has customers in all 50 states and 80 countries worldwide. Steve and his wife, Debbie, are the lucky parents of their new daughter Caeli Grace.

Gordon Murray, Ph. D. with Maxwell in 1975, retired in June 2007 after 31 years of service to NSW Agriculture, Agricultural Resarch Institue, Wagga Wagga, NSW, Australia. He focused his research on diseases of small grains. Gordon and Pat have recently build a country home, which was designed by their son. (http://www.dpi.nsw.gov.au/archive/news-releases/agriculture/2007/pathologist-retires)

Mark Nakhla's youngest daughter, Nina, was married on July 20, 2008. Mark is currently with APHIS in Beltsville Maryland and Bert works for USDA in Washington DC. Mark came to the Department in 1991 and worked with Maxwell and Charkowski for over 13 years.

Bob Rand recently retired after more than four decades of service to the Department of Plant Pathology, College of Agricultural and Life Sciences, and UW-Madison. Well-wishers packed the house at a September retirement party. Bob is still a "regular" in the department, however, as he works toward release of a new red kidney bean variety to be named "Doc," in honor of the late Professor Donald "Doc" Hagedorn. Watch for more on Bob's many contributions to the department and its members in the next issue of the Pathogen.

Former student **Jerry Weiland** left the department in summer 2004 to complete a PostDoc at Cornell University. He has very happily moved on to a "real job" with the USDA ARS Horticultural Crops Research Unit in Corvallis, Oregon. This is a great fit for Jerry, whose undergrad major was in Horticulture at UW-Madison. Bob Martin, a Ph.D. "forest pathology" graduate of the department and virologist is the research leader at the USDA ARS Horticultural Crops Research Unit and says 'hello.'

News from the Plant Pathology Memorial Library: The UW Plant Pathology Memorial Library in 584 Russell Labs provides book, journal and video materials relevant to the needs and interests of our intradepartmental and external patrons. The Plant Pathology Library web pages (http://www.plantpath.wisc.edu/library) lead users to numerous database and Internet resources. This website also provides for book renewal and recall, as well as reference assistance. Our librarian Steve Cloyd, Master of Library Sciences 1995 sets up and maintains reserve book shelves; promotes library awareness among new and present graduate students; periodically processes journals for binding, integrating them into the catalog; keeps track of the budget, and performs other functions as necessary.

The library also continues to attract new users: in 2007, 43 new patrons signed up for our services, an impressive increase of nearly 5% in our patron base over the end of 2006. In addition, 72 new and donated books were added to our collection, many of them donated by generous faculty and grad students. We welcome you to visit!

Bob Rand Retirement

July 4, 2008

Welcome...

New Faculty Member: Jim Kerns

Jim Kerns recently joined the faculty of the Plant Pathology Department as assistant professor overseeing the Turfgrass Pathology program. With an appointment that entails 70% work with Extension, and 30% research, Jim looks forward to collaborating with turfgrass managers and conducting research in the state and region.

This position entails, "Anything related to a disease of turfgrass as far as helping them in diagnosing and controlling the disease. The main focus will probably be with golf courses, but I do want to work a lot with homeowners," said Jim.

Jim's career in turfgrass began as an agronomy undergraduate student at North Carolina State University in Raleigh, ultimately earning a degree in Chemistry. He then went on to earn a Master's from Texas A&M, and most recently, returned to North Carolina State to complete his Ph.D.

"I didn't go the traditional way of post-doc and I was kind of lucky. I never thought I'd get the job," says Jim. "I was at a football game when I got the call, and I almost didn't answer it. But then it was Murray saying he wanted to offer me the job." Although Jim was surprised he was selected, the faculty and turfgrass clientele were immediately impressed with Jim's qualifications and felt it was no surprise he was chosen for the position.

To assist in his task of overseeing turfgrass pathology in the state, Jim thinks the diagnostic clinic that he directs will be essential. The lab allows Jim and his team to collect samples and conduct diagnoses in order to provide beneficial recommendations for turfgrass managers. "We do a lot of fungicide testing, which is helpful. That way, we can say 'this one works, this one doesn't,'" said Jim. Providing such recommendations helps to build an efficient program that won't force turfgrass managers to use every pesticide they have to control a disease.

As far as his research duties, Jim knows he is interested in studying two main diseases: dollar spot and anthracnose, two diseases that have been around for a long time, but are still poorly understood.

"One of the neat things in turf [is that] we know so little about our diseases. We know how to control them, but we know very little about the biology and very little about the epidemiology. These are two diseases I want to jump right into to learn more," said Jim. "Focusing on the biology and epidemiology, if you understand those, you can make better control recommendations. That's my overall goal, to minimize the fungicide inputs without sacrificing turfgrass quality."

But before jumping into the research, Jim knows the first step is talking directly with superintendents to see what problems they experience with their turf, ensuring he's doing research that relates to and benefits the state's turfgrass.

"As far as the Extension component, I love to interact with people, and people tell me I'm pretty personable, so that I'm really looking forward to," said Jim.

In addition to his new charge as turfgrass pathologist in the Plant Pathology department, Jim is also excited to make a home in Madison, a town that is so friendly to biking, jogging, and hiking, as well as enjoying the winter season.

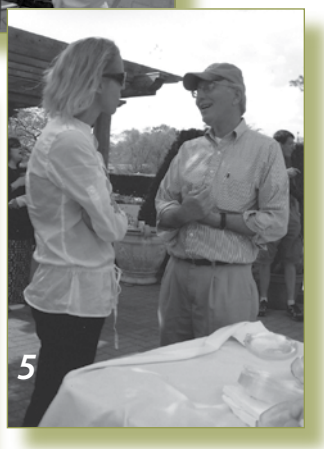
Jim also is eager to be working in a department that truly values his specialty. "Everyone seems generally interested in my position. They did their homework, they know a lot about the turfgrass industry in the state, and they got the turf guys really involved, which is a really good thing," added Jim.

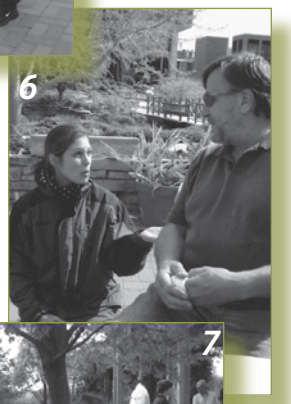
In 2010, the Department of Plant Pathology is celebrating 100 years of excellence. To stay informed about events, connect with colleagues, or view a slideshow of historical photos, visit:

http://plantpath.wisc.edu/centennial.

Recognition Event in Allen Centennial Gardens

May 16, 2008





Guide to the gallery:

1. Craig Grau and John Andrews enjoy a beer, while Walt Stevenson and Paul Esker look on.
2. Tom Dettinger, Mike Schaeffer, and Matt Moore
3. Murray Clayton presents Denise Smith with the Chair's Recognition Award.
4. Amy Charkowski, Cathy Davis-Gray, and Lori Adams-Phillips
5. Bob Rand updates Patty McManus on bean pathology.
6. Emily Mueller and Mike Schaeffer
7. Some of the office staff mingles: Todd Nordgren, Laurie Luther, Anita Hoffman, and Donna Bucholz.
8. Cathy Davis-Gray and Paul Esker
9. Matt Moore is happy that it's spring.

2008 Plant Pathology Department
Awards, Scholarships, and Recognition

Awards

Amy Charkowski was promoted to Associate Professor in July 2008.

Jim Kerns joined the Plant Pathology Department as Assistant Professor in June 2008. Thanks to Wisconsin Turf Association for their help in making this position possible!

Jeri Barak joined the Plant Pathology Department as an Assistant Professor in July 2008.

Nancy Keller was named a Fellow in the American Academy of Microbiology. She has moved from the Department of Plant Pathology to the Departments of Bacteriology and Medical Microbiology and Immunology, but she remains active in training Plant Pathology graduate students and teaching in our department.

Courtney Jahn won a fellowship to visit the International Rice Research Institute in the Philippines.

Laura Helft of Andrew Bent's lab is the recipient of a three-year National Science Foundation Graduate Research Fellowship.

Wenxian Sun of Andrew Bent's lab accepted a faculty position in the Department of Plant Pathology at the China Agricultural University in Beijing.

Caitilyn Allen received the College of Agricultural and Life Sciences International Award and Palmes Academiques from the French government.

Jennifer Clifford won a National Science Foundation East Asia-Pacific Summer Institute Fellowship. It supported a three-month trip to The World Vegetable Center (formerly AVRDC) in Taiwan where she studied microbial community contributions to tomato resistance to bacterial wilt.

Zomary Flores, Jennifer Clifford, and **Zhenyu Liu** were awarded UW Vilas Travel Awards. Zomary attended the annual APS meeting in Minneapolis and Jennifer extended her research trip in Taiwan. Zhenyu attended the Third International Late Blight conference held in Beijing in April.

John Andrews was named Fellow of the American Phytopathological Society and received his award at the APS meeting in Minneapolis.

Riker General Scholarship Fund:
Mapi Marquez Villavicencio and Yu Chen

Dibble-Terra Fund:
Mapi Marquez Villavicencio

August Gorenz Scholarship:
Barrett Gruber

Hagedorn Plant Pathology Senior Awards:
Trisha Franz and Amanda Zimmerman

Cranberry Growers Award:
Libby Rens Davies

WALSAA Travel Award:
Jon Palmer

Louis and Elsa Thomsen Wisconsin Distinguished Fellowship Award:
Zhenyu Liu

Student Travel Awards for the 2008 Annual Meeting of the American Phytopathological Society in Minneapolis:

John F. Fulkerson Award: Hye-Sook Kim
John F. Schafer Award: Jennifer Jirak
Eugene S. Saari Award: Zhenyu Liu
Don E. Mathre Award: Barrett Gruber

Caribbean Division Student Travel Award for the 2008 Annual Meeting of the American Phytopathological Society:
Ismael Badillo

Libby Rens Davies (a senior Plant Pathology undergraduate major), won a University Bookstore Award for her independent research project under Barrett Gruber and Patty McManus.

Craig Grau was the 2008 recipient of the Agricultural Research Station Research Award.

(Continued on the next page)

Scott Adkins (continued from p. 3)

dent RNA synthesis. While there, I also had the opportunity to teach a large undergraduate molecular biology class – which convinced me that teaching was important but that I really loved research!

I was fortunate to be hired into a USDA-ARS virologist position at a brand new facility, the U.S. Horticultural Research Laboratory in southeast Florida in 1999. I had the opportunity to equip and set-up a lab and hire personnel as I saw fit. And also to establish a research program in vegetables and ornamentals where none previously existed. Other than the occasional hurricane, Florida is a fabulous location for a plant pathologist! I have discovered or been part of the discovery of several new plant virus species in this position, including one that causes watermelon vine decline.

Beyond basic facts and figures and experimental protocols, my time at UW-Madison taught me how many things are possible when artificial barriers (like departmental boundaries!) can be ignored. For instance, my advisory committee included a virologist from the UW medical school. I have continued to seek collaborators and advice from non-traditional corners and my current research program has benefited from a diversity of collaborators. It has also benefited from a team approach where a group of people tackle a problem together rather than each person tackling a separate problem. Kind of "the many hands make light work" philosophy. This was definitely Tom German's approach and I grew up in a lab where we collaborated with most of other the US tospovirus researchers. Another of Tom's key points was the integration of applied and basic research, something I strive to do in my own lab today. Often there is the idea that applied and basic research are separate endeavors but this is a pretty short-sighted view.

What do you enjoy most about being a Plant Pathologist?

As you can probably guess, I enjoy working with other people to solve common problems. Plant pathology, and agricultural sciences in general, are small communities – within a state, a country, or indeed the world. Plant pathology has taken me to many interesting places in Wisconsin, the US and the world – usually to look at sick plants, and to meet with farmers and plant pathologists! Often fellow Badger alums turn up in these same places.

What suggestions do you have for current graduate students in Plant Path at UW-Madison?

Study and do your research to get a good grounding in the facts, and use this to network with your major professor's scientific friends and colleagues to diversify your perspective on plant pathology research and life in general. Use the same approach at professional meetings, seminar series or any other travel opportunities you have.

Awards (continued from previous page)

Erica Yashiro received a Franco-American Cultural Exchange scholarship.

Ismael Badillo, a M.S. student in Tom German's lab, was awarded a competitive Graduate Fellowship in Ecological Genomics at Kansas Sate University. The fellowship includes four-year paid tuition, stipend and some spending money. He will work with Anna Whitfield, an assistant professor at KSU and former student of Tom German.

Ismael Badillo was awarded a Timothy R. Donoghue Graduate Scholarship for the 2008-2009 and 2009-2010 academic years.

Vaughan James Retirement

October 3, 2008

Vaughan James celebrated his retirement with friends, colleagues, and a special cake from Scott's Pastries, a local bakery owned by the family of department receptionist Donna Bucholtz.

PP559 (continued from p. 1)

As Grau describes, "Within the 8-week course, someone is in charge each week, depending on his or her expertise." The topics for each course might include small grains, fruits, forest and shade trees, ornamentals, vegetable and field crops, soybeans, corn, and turf.

Of course, the economic impact of pathogens is not always neatly organized by commodity. Organic production was recently added as a topic. Caitilyn Allen, has shared her expertise in international agriculture and the movement of pathogens across political boundaries. It's also been important to include professors from other departments, such as Entomology and Agronomy, to give students a broader perspective on the role of pathogens relative to other pests and problems that growers face.

While the mission of the course has remained largely unchanged, the format has evolved. "It's always been a day and a half, on Thursday and Friday. Initially it was Thursday morning in the lab, and then Friday all day somewhere upstate, out of Russell [Laboratories]. When I took over I reversed it. I felt it was better to go out and look at things on Thursday and then go to the lab," said Grau. Although for many years 559 was taught every year, it is now offered every other year.

In recent years, instructors and students of Plant Pathology 559 have benefited from a teaching assistant. The TA helps coordinate the course's timeline, as well as help out in the field, collecting samples for the next day's lab.

A popular activity, which began during Deane Arny's time as lead professor, is an overnight stay at Kemp Station in Wisconsin's picturesque Northwoods. Many consider this one of the most memorable and rewarding parts of the course.

Grau says, "I'm very rigid about that—that we get to Kemp in time for the students to enjoy themselves. You can't go to Kemp and not walk around, or swim, or [do] whatever you want to do."

"Every class period offered a unique experience to visit a different field, crop, or region, and explore a diversity of pathogens found in those fields. It was amazing to realize how important a plant pathologist can be for the farmer and for agricultural production in general," says Maria del Pilar Marquez Villavicencio, a current student.

Although much has stayed the same over the years, a few things have changed.

"The digital camera has revolutionized how we can teach the course," says Grau. "Because [the cameras] have instant capture, you don't have to send the film off. The next day in lab [students] can look at the pictures they took." Students also learned that they could put a digital camera on a microscope to capture what they were seeing.

With these technological advances also came the requirement that students complete a field notebook, in which they compile images of what they see in the field and in the lab.

One of the key activities in Plant Pathology 559, and one that continues to change with new advances, is diagnosis. According to Grau, "Across a range of plant types, we work a lot on techniques." For example, a test to detect a virus had to be done in the lab 15 years ago, but now students can detect a virus using a kit in the field.

Grau says the course is not only about the instruction the professors and lead instructors provide, but also self-discovery. Participating in the class also gives students the chance to get out of Madison to explore the state.

"To be the lead instructor in 559 is a wonderful opportunity. I think I got to know some of these students better than their own professors. I see them in many situations: how they react to stress, happiness, and fatigue. I definitely see the social side sometimes. It's a perk to be able to be with these students," says Grau.

Centennial Countdown!

From its founding in 1910 by L. R. Jones to the present, our department has enjoyed a rich history of discoveries and innovations, and it's time to celebrate! Planning is already underway for a series of events in the summer of 2010 -- we'll let you know about these activities as details become available.

Critical to our historical success has been an extraordinary legacy of gifts from alumni, emeritus, and friends. Your donations help us attract and support top-flight graduate students, sponsor seminar speakers, enhance research and teaching facilities, and maintain our preeminence as leaders in the field of plant pathology. Your support for these activities, and for our centennial celebration, is very much appreciated.

Your annual household gift of $500 or more qualifies you and your spouse for membership in the CALS Dean's Club. An invitation to join the prestigious Bascom Hill Society is extended to those who provide support of $25,000 or more to the department or a specific project or program of their choice. You can also pledge your commitment over a 10-year period, provide for a gift in your will, or give a gift of annuities or appreciated stock.

If you have specific questions about giving, please contact Andrea Engebretson at the UW Foundation (Phone: 608.263.0852; e-mail: *Andrea.Engebretson@uwfoundation.wisc.edu*).

Department of Plant Pathology Fund

I/we wish to join other students, alumni, industry and friends in enhancing the teaching, research and outreach programs in the Department of Plant Pathology by contributing to the department as indicated below. Make check payable to: *UW Foundation - Department of Plant Pathology*.

❑ Enclosed is my/our contribution of $ _____ I choose to specifically designate my gift for the following:

- ❑ The greatest needs of the department
- ❑ Centennial celebration activities
- ❑ Student support
- ❑ Faculty/research/extension

❑ I/we wish to pledge $_____ each year for _____ years beginning in _____(year).
Please remind me of the annual amount I have pledged in _____ (month).

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Return form to: Andrea Engebretson, UW Foundation, 1848 University Ave.,
P.O. Box 8860, Madison, WI 53708-8860

Where Are They Now?

Do you have news to include in the next *Pathogen*? New Job? Family news? Recent retirement? We'd like to hear about what you've been up to lately. If your address has changed, please let u s know so that we can keep our mailing list current. Send to: *The Pathogen*, Department of Plant Pathology, 1630 Linden Drive, Madison, WI 53706; Phone: (608) 262-1410; fax: (608) 263-2626; email: *mkc@plantpath.wisc.edu*.

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