Department of
Plant Pathology

University of
Wisconsin- Madison

December 2007

The Pathogen

Department of Plant Pathology Receives Three Major Gifts

The Department of Plant Pathology was the recipient of three major gifts in 2007, recognizing the department's achievements and continued progress toward important issues in the field. In their different capacities, each gift will provide support of faculty programs and continued first-class research in plant pathology.

Jack and Flora Berbee.

* * * *

In May 2006, well-known scientist and University of Wisconsin alumna and former faculty member Ethel K. Allen passed away at the age of 98. The provisions of her estate called for the distribution of over $16.5 million to several campus departments including a gift to the Department of Plant Pathology. The award, which will help fund a new professorship in phytobacteriology, recognizes Allen's esteem for the field of plant pathology.

Ethel Allen grew up in Milwaukee and received her bachelor's degree in Botany from UW-Madison in 1928, followed by a Master's of Science in Bacteriology in 1930. She was married to renowned bacteriologist and faculty member Oscar N. Allen. Sharing a passion for biology and bacteriology, the two worked side-by-side as a team throughout their lives, although much of Ethel Allen's contributions were on a volunteer basis.

In an oral history project conducted in 1982, Ethel Allen recounts her academic career and time at Wisconsin as a student and faculty member. Remembering her time as an undergraduate, she said, "I was a very poor student, actually, except in biology, which I loved dearly." Despite encouragement by her father to become a teacher, she stayed at Madison to earn her Master's and became a renowned scientist and international authority in her field.

After Ethel and Oscar Allen were married, they spent 15 years in Honolulu at the University of Hawaii. Inspired by the vast wealth of leguminous plants they found there, the couple began to collect and analyze root nodules. Throughout their careers they continued to travel and expand their collection, visiting the Arctic, Japan, the Philippines, Australia, Fiji, and New Zealand. Eventually the culmination of this work took shape in a book the couple co-authored, published in 1981 after Oscar's death, The Leguminosae: A Source Book of Characteristics, Uses, and Nodulation. The book is considered the primary encyclopedic work on nitrogen fixation in leguminous plants. In addition to *The Leguminosae*, the couple also published over 40 papers and book chapters together.

After their time in Hawaii, the couple returned to Wisconsin after a brief stint in Maryland. In Madison, Oscar Allen held a faculty position in the Department of Bacteriology, and Ethel began her own professional career as a research fellow studying nitrogen fixation.

In their lifetimes, the Allens demonstrated their generosity and affec-

(Continued on p. 13)

Notes from the Chair

As I write this we have just finished interviewing candidates for a position in turfgrass pathology. This is an exciting opportunity, not least because we get to have a number of talented individuals come to visit the department, but also because we have a chance to showcase our department, college and university. That said, although touring the campus shows that it is big and beautiful, it doesn't really convey the essence of the institution. Over the past many months I've been contemplating what our enterprise is really about, but to capture that requires stepping back from the daily demands of memos, meetings, and assorted tasks and looking more broadly at the enterprise.

UW-Madison is a truly remarkable place: a world-class university that is an absolute leader in research, extension, and teaching. Our accomplishments, our discoveries and our inventions fill volumes, and these efforts leave a lasting, powerful and enormously positive impact on our state, our country, and our planet. But none of these accomplishments would be possible without the talented and hard-working people at the UW. Our faculty, staff, and students are among the best and brightest in the world, and that, in my mind, is the key. Empty buildings can't visit growers, teach or do research. The key lies with the people.

You'll see in this newsletter that we have featured a number of friends, alumni, and current members of our department. Meet Paul Esker, our newest faculty member, who joins us to enhance our strengths in field crops pathology. Read about the many awards that our students have garnered over the past year. We take great pride in their accomplishments, as we do in the accomplishments of our alumni. We are grateful to Lowell Black, Mark Boudreau, Linda Kinkel, and Caroline Young for bringing us up to date.

In the past year we've been exceptionally fortunate to receive three major gifts. Ethel Allen, someone with a long history of association with our department, dictated that her estate would provide us with the funding to establish a professorship in phytobacteriology. Our emeritus and emerita Jack and Flora Berbee were recently honored by a fellowship given in their name: The Wisconsin Distinguished Graduate Fellowship in Turfgrass Pathology. And, not least, the Wisconsin Turfgrass Association has provided a major gift in support of our turfgrass pathology faculty hire.

We are also in the midst of experiencing a number of transitions for our faculty. Up until recently, Nancy Keller's appointment has been joint with Food Microbiology and Toxicology. That department has now merged with Bacteriology, and Nancy was left to decide how she would tailor her appointment in the future. We're delighted that she will remain 50% in Plant Pathology, and will be newly appointed 50% in Medical Microbiology and Immunology.

An even greater transition is underway for Jo Handelsman, who is now chair of the Department of Bacteriology. Jo's lab has moved into the new Microbial Sciences Building, and we already miss the chance to mingle with her group on a daily basis. We wish her the very best as she takes on this new adventure.

Not least at all, Walt Stevenson will be retiring in January 2008. This, too, is bittersweet. Walt has contributed in a vast number of ways to our department, college, and state, and we will miss him, too. One bit of good news: we'll be able to celebrate while it's still winter, and thus send him off in style before the trout season begins.

I hope you enjoy reading about the news and events in this issue. If you haven't visited us lately, please do. It really is a pretty special place, and you played a role in helping us to get here.

On Wisconsin!

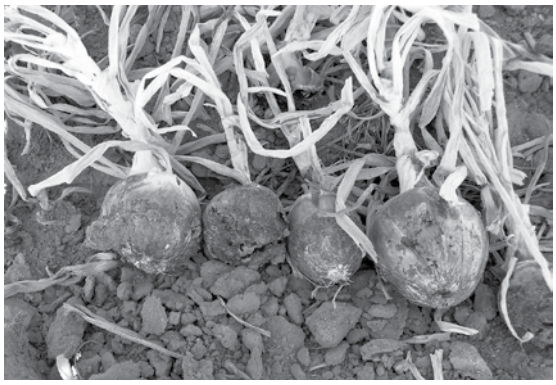
Murray Clayton

Featured Alumni: Lowell Black

Since receiving his Ph.D. from the University of Wisconsin-Madison's Department of Plant Pathology in 1968, Lowell Black has traveled to some of the farthest corners of the world in his work as a vegetable pathologist. But now Black finds himself back in Wisconsin, just a 25-minute drive from the UW-Madison campus, working for Seminis Seed Company in De Forest.

Prior to working for Seminis, Black spent 10 years working for the Asian Vegetable Research and Development Center (AVRDC), and was based at their headquarters in Shanhua, Taiwan. Originally founded to increase vegetable production in the Asian tropics, AVRDC eventually expanded its reach to the global community to support vegetable research and development in Africa, Asia, and elsewhere. The center's revised name, the World Vegetable Center, now reflects its expansion to other parts of the globe.

"I was working more with peppers and tomatoes there, particularly with the south and southeast Asian countries," says Black. "We also had activities in Central America and Africa. More recently the African program has really ballooned because they received a grant



from the Bill and Melinda Gates Foundation to improve vegetable production capabilities there."

While working for AVRDC, Black was a chief mycologist responsible for research and the dissemination of technology for vegetable fungal diseases. He worked with national agriculture research scientists in the developing world in south and southeast Asia to identify disease agents, conduct surveys, educate, and collaborate with other organizations and

groups.

According to Black, he worked on diagnosing a number of diseases in peppers and tomatoes, including late blight and Fusarium wilt in tomatoes, and Phytophthora blight and anthracnose in peppers.

Eventually Black's purview with AVRDC expanded and he also served as a program director, in addition to his duties as chief mycologist. In this role, Black administered six disciplinary departments at AVRDC's headquarters and managed projects on peri-urban (the periphery of urban areas) vegetable production in the Philippines and Vietnam.

Now working for Seminis Seed Company, the largest vegetable seed company in the world (owned by Monsanto), Black is a senior scientist and root and bulb pathologist. He focuses on developing and improving disease-screening procedures and works with breeders on improving disease resistance. Currently, Black is identifying the resistance sources for two onion diseases—Fusarium basal rot and pink root—by screening the material of five different onion breeders from around the world.

Although Black is back in Wisconsin, he still travels internationally and continues to be involved with AVRDC. Recently, Black served on the executive planning committee for the First International Symposium on Chili Anthracnose, held September 17-19 in Seoul, South Korea. The symposium is a collaborative effort between AVRDC and the Rural Development Association of Korea (the equivalent of the United States Department of Agriculture) to better understand the management of and share knowledge on anthracnose.

(Continued on p. 4)

Featured Alumni, (Cont. from p. 3)

Black started working with anthracnose with AVRDC in Taiwan. The disease continues to have the largest economic impact on the world's chili and sweet pepper production, and is particularly destructive in chili crops in tropical and subtropical regions.

Lowell Black and PP559 students.

Prior to working at Seminis and with AVRDC, Black held faculty positions at two major universities, including 25 years as a professor at Louisiana State University where he remains an adjunct professor. He also spent three years as an assistant professor at West Virginia University. Black was born in Arkansas and earned his Bachelor's and Master's degrees in Agriculture and Plant Pathology, respectively, from the University of Arkansas.

Reflecting on his 45 years in plant pathology, Black does acknowledge a shift in direction of biology as a discipline, and wonders what this means for the field of plant pathology.

"Biology in general is going almost entirely molecular, which is a super tool," describes Black. "But I'm afraid the disciplines will be lost. I think there is a loss of focus on disciplines which does in fact carry a certain identity and a commitment to pathology." Black advises students to maintain the whole plant and whole animal biology in their studies. "I'm concerned we'll be reinventing the whole plant and animal of biology."

Throughout his vast travels and ventures, Black still credits the University of Wisconsin-Madison and the Department of Plant Pathology for many of his successes.

"University of Wisconsin had one of the highest reputations for plant pathology and was top-ranked," describes Black of the time he was at a student at UW-Madison. "Being a graduate of UW opened a lot of doors. Many people went from Wisconsin to fill faculty positions all around the United States. To have a degree from Wisconsin is definitely an asset."

The years Black spent at Madison were milestones for the department. "It was my class that started the Pathogen," says Black. "And I was there when Plant Pathology moved from Moore Hall into Russell Labs." Black adds, "I still think of Russell Labs as 'the new building.'"

Organic Potato Farming in Wisconsin

Organic farming is an important industry in Wisconsin, which ranks third nationally in the value of commodities sold and fourth in number of organic farms, with over 560 farms in operation. Potatoes are the most important non-grain food crop, but organic potato production in Wisconsin lags far behind conventional production.

Although Wisconsin ranks third nationally in value of potatoes produced, only 2% of the organic potatoes grown nationally are produced here. One of the main difficulties in organic potato production in the Midwest is obtaining quality seed of the specialty varieties preferred by organic growers. Currently, there is only one organic farm in Wisconsin producing certified seed potatoes.

With the help of several Wisconsin farmers, Professors Doug Rouse and Amy Charkowski, along with post-doctoral researcher Ruth Genger, initiated a project to determine if high quality certified seed potatoes could be produced on organic farms in Wisconsin. During the summer of 2007, field trials were established on six organic farms in four different regions in Wisconsin. The potatoes were monitored for diseases and insect pests and two virus control measures suitable for organic farms were tested. The potatoes harvested from these plots will undergo post-harvest testing to determine if they are suitable for use as organic seed potatoes in 2008.

If successful, this project will increase the availability of quality seed potatoes in the Midwest and reduce disease pressure faced by organic growers.

Focus on the Faculty: Paul Esker

After several years away, Paul Esker is excited about returning to his home state, as he begins his job as an assistant professor in our department. Paul has extension and research responsibilities related to field crops important to the economy of Wisconsin.

Esker grew up near Wausau, but his interest in plant pathology budded here at the UW. As an undergraduate planning to study medicine, Esker started working on disease resistance at the U.S. Dairy Forage Research Center with clover breeder Dick Smith. This eventually led to an independent study with Professor Craig Grau in the Department of Plant Pathology.

"I worked with Craig Grau studying Aphanomyces and it really piqued my interest in plant pathology," said Esker. "I realized this would be an interesting major."

After receiving his B.S. degree in Genetics and Bacteriology from UW-Madison, Esker moved to Iowa State University in Ames to study Plant Pathology. While pursuing his M.S. degree, Esker participated in a National Science Foundation program called Vertical Integration of Research and Education in the Mathematical and Physical Sciences. The goals of the program are to get students interested in the quantitative aspects of science, and this sparked Esker's interest in statistics. After earning his M.S. in 2001, Esker went on to earn a dual Ph.D. in Statistics and Plant Pathology in 2005.

When asked what aspect of his work he likes most, Esker admits there is an assumption that a statistician would prefer crunching numbers in front of a computer. But Esker actually likes using what he sees in the field and making sense of it with his statistical knowledge.

"When you look at symptoms in a book or a photo, sometimes they do actually look like that in the field, but most often they look much different," said Esker. "It comes back to how you can use statistics to consider all the factors and figure out what is really going on."

At Iowa State, Esker mainly studied Stewart's Disease, a bacterial disease of corn. His work was based in epidemiology, particularly in disease forecasting and how to predict seasonal risk. Stewart's Disease is unique in that it is dependent on the corn flea beetle insect vector. Esker's research included studying the seasonal dynamics, the number of generations the insect can sustain the pathogen, and possible management tactics.

Paul Esker

Esker stayed in Ames as a postdoctoral research fellow, and eventually shared his time between Iowa State University and Kansas State University.

But Esker's work has taken him much farther than the Midwest. He was awarded a grant by NSF to conduct research in biological informatics through the study of Asian soybean rust. This work took Esker all the way to Brazil.

Soybean rust is a critically important topic for soybean growers, particularly in certain parts of the world such as Brazil, where it has been severe. In Brazil, Esker's work was also along the lines of epidemiology, and studying what major risk factors are driving the epidemic. He also studied landscape and community ecology concepts to understand further how Asian soybean rust advances.

"A lot of the work was formulating how to work with the available data," said Esker. "There is much more information there because the epidemic is much more severe than in the United States." According to Esker, he worked on understanding the factors, regional risk assessment, and whether it could be a national or continental epidemic.

In Brazil, Esker worked with the Brazilian department of agriculture, and also with Universidade

(Continued on p. 6)

Focus on the Faculty, (Cont. from p. 5)

Federal do Rio Grande do Sul, one of the country's larger agricultural universities.

Esker also did some teaching in Brazil, sharing his expertise on statistics and epidemiology in workshops for a variety of researchers. Although Esker took a course in Portuguese and had some Spanish knowledge, his courses were taught in English.

Despite his exciting travels abroad, Esker is looking forward to returning to his native state to join the faculty in the Department of Plant Pathology.

"It's nice knowing that you have the luxury of working at a really good institution, but you also get to do it where you're from, and all the perks that come with it," said Esker, who is also looking forward to living closer to family and moving to an area he is already familiar with.

Craig Grau, Esker's former advisor, is pleased to note that Esker will bring his diverse experience to the faculty.

"Paul Esker's educational background will provide a rock solid foundation on which to build his career in our department," said Grau. "Versatility is an important virtue in our profession, especially for a person with extension responsibilities. Paul has extensive versatility with his degrees in bacteriology, genetics, and statistics and this knowledge will serve him well as he plots his future course."

Esker's official role will be as a Field Crop Extension Specialist, with 75% of his time working on such crops as corn, soybean, wheat, and alfalfa, and 25% of his time on research. Esker says he is excited to help farmers with any issues they are dealing with.

"I genuinely am excited by this opportunity," said Esker. "Working in a world-class department makes it that much better."

Wear Your Department!

Fashions that never go out of style!

Plant Pathology
University of Wisconsin

Pricing (plus shipping)

Mug:	$ 5.00
Water bottle:	$ 8.00
Polo T-shirt:	$22.00
T-shirt:	$18.00
Long sleeve T:	$20.00
Cap:	$10.00

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

All proceeds support student activities.

Recent Graduates... Congratulations!

Bradley Borlee
Ph.D., Dec. 2006
Handelsman Lab

Hernan Garcia Ruiz
Ph.D., Dec. 2006
Ahlquist Lab

Thomas Hammond
Ph.D., May 2007
Keller Lab

Paul Koch
M.S., May 2007
Jung and
Grau Labs

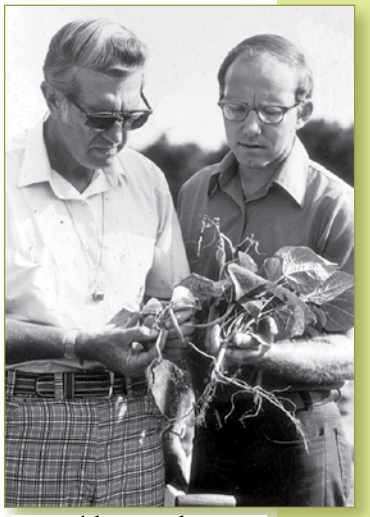
Mary LeMere
M.S., Aug. 2007
Stevenson Lab

Jian Yao
Ph.D., May 2007
Allen Lab

In memoriam: Donald Hagedorn

Donald J. Hagedorn, emeritus professor of plant pathology, passed away on Wednesday, April 11, 2007. His obituary follows:

Dr. Donald J. Hagedorn, age 87, passed away on Wednesday, April 11, 2007, at HospiceCare in Fitchburg. Don was born on May 18, 1919, the son of Frederick and Elizabeth (Scheyer) Hagedorn in Moscow, Idaho. Dr. Hagedorn achieved his undergraduate degree at the University of Idaho and his master's and Ph.D. at the University of Wisconsin-Madison. Don married Eloise Tierney on July 18, 1943, in Salt Lake City Utah and they shared 63 wonderful years together.



Donald Hagedorn (left) with Bob Rand

Dr. Hagedorn was an internationally known plant pathologist and professor of plant pathology at the University of Wisconsin-Madison from 1948 until the time of his retirement in 1987. His dedication to field research led to the development of disease resistant peas and beans. A popular teacher and advisor, he provided a nurturing environment for the 48 graduate students who studied under his direction. Dr. Hagedorn published 320 scientific papers, many of which he presented at meetings and conferences in every area of the globe.

His contributions to the field earned him many awards and recognitions, including the CIBA-Geigy Award in Plant Pathology, meritorious service awards from the National Pea Improvement Association and the Bean Improvement Co-operative, the Forty-Niners Service Award for outstanding service to the canning industries, the APS Fellow Award from the American Phytopathological Society and an Honorary Doctor of Science from his alma mater, the University of Idaho. In addition to his membership in several professional associations, Dr. Hagedorn was the co-organizer of both the International Working Group on Legume Viruses and the National Pea Improvement Association and appointed to the U.S. Plant Variety Protection Board in 1978, by the Secretary of Agriculture. He served his fellow man through work with the Boy Scouts of America, the Downtown Madison Kiwanis Club and as a Sunday school teacher at First United Methodist Church. Don was an avid fisherman, fishing the lakes and streams of Canada, Alaska, Idaho and Montana.

Don is survived by his beloved wife, Eloise; his cherished grandchildren, Kristen, Erin and Sarah; daughter-in-law, Orlene; a brother, Gerald; nieces, Sharon Wenger and Mary Jane Allen; and nephews, Bill Tierney, Michael Tierney and Tom Evans. Donald is also survived by many friends and a dear friend and colleague, Bob Rand. Don was preceded in death by his parents and his son, Jim. The family asks that memorials be made to the Hagedorn Scholarship, University of Wisconsin Foundation, 1848 University Ave., Madison, WI 53726 or The Donald J. Hagedorn Scholarship Endowment at the University of Idaho Trust and Investment Office, PO Box 443143, Moscow, ID 83844. Don will be remembered by many for his devotion to his wife, his sense of humor and his great love for all people.

Welcome New Graduate Students!

Saori Amaike
Keller Lab
Ph.D. Program

Ken Frost
Groves Lab
(Entomology)
Ph.D. Program

Jennifer Jirak
Esker Lab
M.S. Program

Brent Oblinger
Stanosz Lab
M.S. Program

Shahideh Nouri
Groves Lab
(Entomology)
Ph.D. Program

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

In April, 2007 **Caitilyn Allen** taught a 1-month module in Genetics and Genomics at the INRA Agricultural University in Montpellier, France. While in France, our family enjoyed a delightful visit with Cindy Morris and Philippe Nicot (who earned Ph.D.s with Doug Rouse in 1985) and are now researchers at INRA-Montfavet).

Andrew Bent and his sons take a break from climbing the Alps.

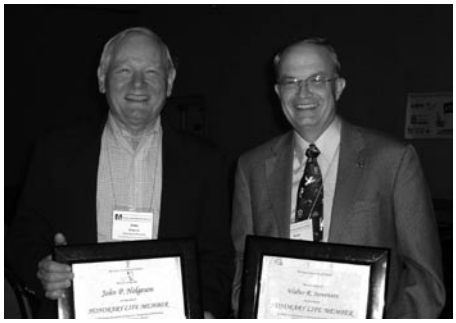
After 12-1/2 years in the faculty ranks, **Andrew Bent** took his first sabbatical and did research in the laboratory of Thomas Boller in Basel, Switzerland during the Spring 2007 semester. Not knowing a stitch of German, Andrew proceeded to master key elements of the Swiss dialect such as "Grüezi" "Rösti" "Grüezi mitenand" ("it took me half the sabbatical to figure that last one out – everyone said it to us – I kept wondering if maybe it meant my shoe was untied?"), and most importantly, "Rede zi Anglisch?". Between experiments to uncover how plant immune systems detect bacterial flagellin, Andrew managed to sneak away for a few invited talks in the neighboring lands as well as a few pleasure trips to city and countryside. "The Alps really are as spectacular as the stereotypical stories and photos – what a great place."

Murray Clayton visited and spoke at the Northeast Forestry University in Harbin, China, and at the Beijing Forestry University. Side trips included: downhill skiing outside of Harbin, visiting the Great Wall of China, the Forbidden City, the Summer Palace, Shanghai, and neighboring Zhouzhuang. His former graduate student Xiaolei Li served as translator and guide. "The food was superb, the sights amazing, and the people friendly and gracious!"

Tom Hammond graduated with his Ph.D. from the Keller Lab and is now a postdoctoral researcher at the University of Missouri.

Jo Handelsman will be chair of the UW Department of Bacteriology, while retaining her appointment in Plant Pathology. Jo's lab is now settled in the new Microbial Sciences Building.

John Helgeson and **Walt Stevenson** each received the Honorary Life Member award on August 16, 2007 at the annual meeting of the Potato Association of America in Idaho Falls, ID.



John Helgeson and Walt Stevenson.

Nancy Keller was very honored to receive an APS fellow and University of Wisconsin Kellett mid-career award this year. She is thankful to all the great undergraduate, graduate and postdoctoral students and lab technicians in her lab who contributed to the lab to make these awards possible. She also thanks her colleagues in the faculty who put in long hours to help nominate her for these awards.

The Keller lab has moved into the new Microbial Sciences Building, on Linden Drive where Fred Hall (Bacteriology) was located.

Maria del Pilar (Mapi) Marquez-Villavicencio, a graduate student in Amy Charkowski's lab was recipient of the Jose and Silvia Amador Travel Award, to support her attendance at the APS meeting in San Diego. Mapi shares that "the experience to be in the annual meeting was very interesting and important for me because not only I could show my current research, but also it gave me the opportunity to meet very respected scientists…as well many people who are a very active members of the APS foundation. This helped me a lot to make a network connection to improve my work and at the same time to receive a very good feedback from other researchers."

Douglas Maxwell, Professor Emeritus reports: "My research on breeding tomatoes for resistance to begomoviruses has continued in Guatemala and the Middle East. The project has been expanded to include bacterial wilt and now involves **Dr. Caitilyn Allen** and her research team. My laboratory research focuses on developing molecular markers for resistance genes in tomato and the laboratory experiments are being carried out by Brenda Esperanza Garcia from Guatemala and Chris Martin and Katie Jensen, undergraduates at UW. A project evaluating improved germplasm of beans and cowpeas has been started in a Mayan community in southeastern Guatemala.

This summer **Doug Maxwell** moved from the fourth floor to the sixth floor of Russell Labs, which is his tenth move in

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the department. However, he reports that he's still discarding things from the Walker/Williams era!

Members of the forest pathology group, professor **Glen Stanosz**, research specialist **Denise Smith**, and graduate student **Isabel Munck** attended the meeting of the Working Party 7.02.02 Foliage, Shoot, and Stem Diseases of the International Union of Forestry Research Organizations in Sopron, Hungary in May 2007. They contributed three presentations of the group's research on the shoot blight fungi *Diplodia pinea*, *Diplodia scrobiculata*, and *Sirococcus conigenus* that have great importance in conifer forests of Europe, as well as Wisconsin. In addition to scientific paper sessions, the meeting included field trips in Hungarian forests where numerous tree diseases were observed, including the unusual circumstance of aggressive attack of sessile oak by the chestnut blight pathogen.

Forest pathologist Glen Stanosz is caught photographing chestnut blight in Hungary! (Photo by Erhard Halmschlager)

Following this meeting Glen proceeded to nearby Vienna, for a four-day visit with forest pathology colleagues Erhard Halmschlager and Thomas Kirisits at BOKU, the Austrian University of Natural Resources and Applied Life Sciences. Interestingly, Austrian pine forests appear to be suffering from the invasion or intensification of activity by *Diplodia pinea*, just as occurred in Wisconsin beginning 30 years ago. In addition to observing damage in the field, Glen provided two guest lectures and discussed plans for future collaboration.

Sarah Stephenson, technician in the Halterman Lab, recently received a Masters of Science in Biotechnology through the UW School of Medicine.

Walt Stevenson participated in the XI National Reunion of the Potato in Puerto Varas, Chile in December 2006. Walt presented a comprehensive talk on the ingredients needed for successful management of potato late blight to attendees that included growers, government scientists and university faculty. While in Chile, he visited numerous farms and one of the leading processors near Osorno. He also met an alumnus of our department, **Luigi Ciampi**, a former Ph.D. student of Luis Sequeira. Luigi is a faculty member at Universidad Austral de Chile near Valdivia. He just published a book on fungal pathogens of vegetables which is now on display in the Plant Pathology Library.

Photograph of Luigi Ciampi (left) and Walt Stevenson (right) at potato meeting in Chile.

Jian Yao successfully defended his Ph.D. thesis in March 2007 and has now joined Shen Yang He's lab at Michigan State University as a post-doctoral researcher.

In May 2007 the **Plant Pathology Library** won a $1000 grant from the Friends of the UW Madison Libraries. With this grant the library will buy new titles to continue to provide patrons with the most recent and vital information in the field. If you have suggestions for new books (please, no more than two per person), you may send them to *scloyd@library.wisc.edu*. The library's web page has also been updated to feature a page in Spanish at *http://www.plantpath.wisc.edu/library/spanish.htm*. Visit the library at 584 Russell Labs. In-person service is available M-F from 9 a.m. to 12:45 p.m.

The **Symbiosis Summer Program**, sponsored in part by the Department of Plant Pathology, hosted 12 undergraduate students from around the country for 10 weeks during the summer of 2007. These students conducted research around a theme of symbiosis, including plant-microbe interactions, be they antagonistic, beneficial, or benign. They presented their research at a symposium in August.

Student Awards & Recognition

Libby Rens and **William Sharpe**, undergraduate Plant Pathology majors, won the Hagedorn Award, which is awarded to deserving students in their senior year.

William Kreuser, an undergraduate Plant Pathology major won the August Gorenz Scholarship.

Courtney Jahn, a Ph.D. student in the Charkowski Lab, won the Milt & Nancy Schroth Student Travel Award for the 2007 Annual Meeting of the American Phytopathological Society in San Diego.

Kim Lesniak, an M.S. student in the Stevenson Lab, won the Riker Academic Merit Award.

Zhenyu Liu, a Ph.D. student in the Halterman Lab, won a Riker Award.

(Continued on p. 11)

APC Past-President Andrews Reflects

The UW Department of Plant Pathology has a strong tradition of serving the professional societies of our discipline through committees, editorial service, and by providing leaders from our ranks who become elected officers. Two faculty members, John Andrews and Ann MacGuidwin, recently finished terms as President of the American Phytopathological Society (APS) and the Society of Nematologists (SON), respectively. Below, John reflects on his experiences. In the next issue of the Pathogen, we will hear from Ann.

John's involvement in APS governance can be traced back to an impassioned seminar he gave to the department in 1998, in which he stressed the need for faculty, staff, and students to become more engaged in APS. John spoke of the influential role that our department had played in APS since its inception, but felt that as a department, we were losing prominence in the inner circles of the society.

A colleague challenged him to act on his own advice and nominated John for a position on APS Council. He was elected to Council, and after 3 years of service, John was encouraged to run for Vice President, which led to the offices of President Elect and President. Today, John is grateful for the nomination that started it all.

Legacies of the Andrews presidency can be appreciated at the national APS meeting. There is now greater emphasis put on the poster session, giving those authors more exposure. There are more perks for undergraduate students, to entice new blood into the society. The awards ceremony now takes place on the last evening, giving awardees the limelight they deserve. A closing party that follows the awards ceremony allows all attendees to come together one last time to relax and celebrate. "Previously the meeting was front-end loaded, and some people left early," according to John. For the meeting last summer in San Diego, he even got APS to provide a complimentary glass of champagne for all in attendance to toast the awardees.

Less tangible than the annual meeting, but no less rewarding to John, was the feedback he received on the monthly editorials he wrote for Phytopathology News. These features were focused on issues important to science and plant pathology. A particularly provocative piece focused on the conflict between creationism and evolution and the need to keep creationism out of the science classroom. John recalled the ensuing mix of strong support and harsh criticism, saying, "My sense from the monthly feedback was that APS members liked hearing from their President, even if they didn't always agree with me."

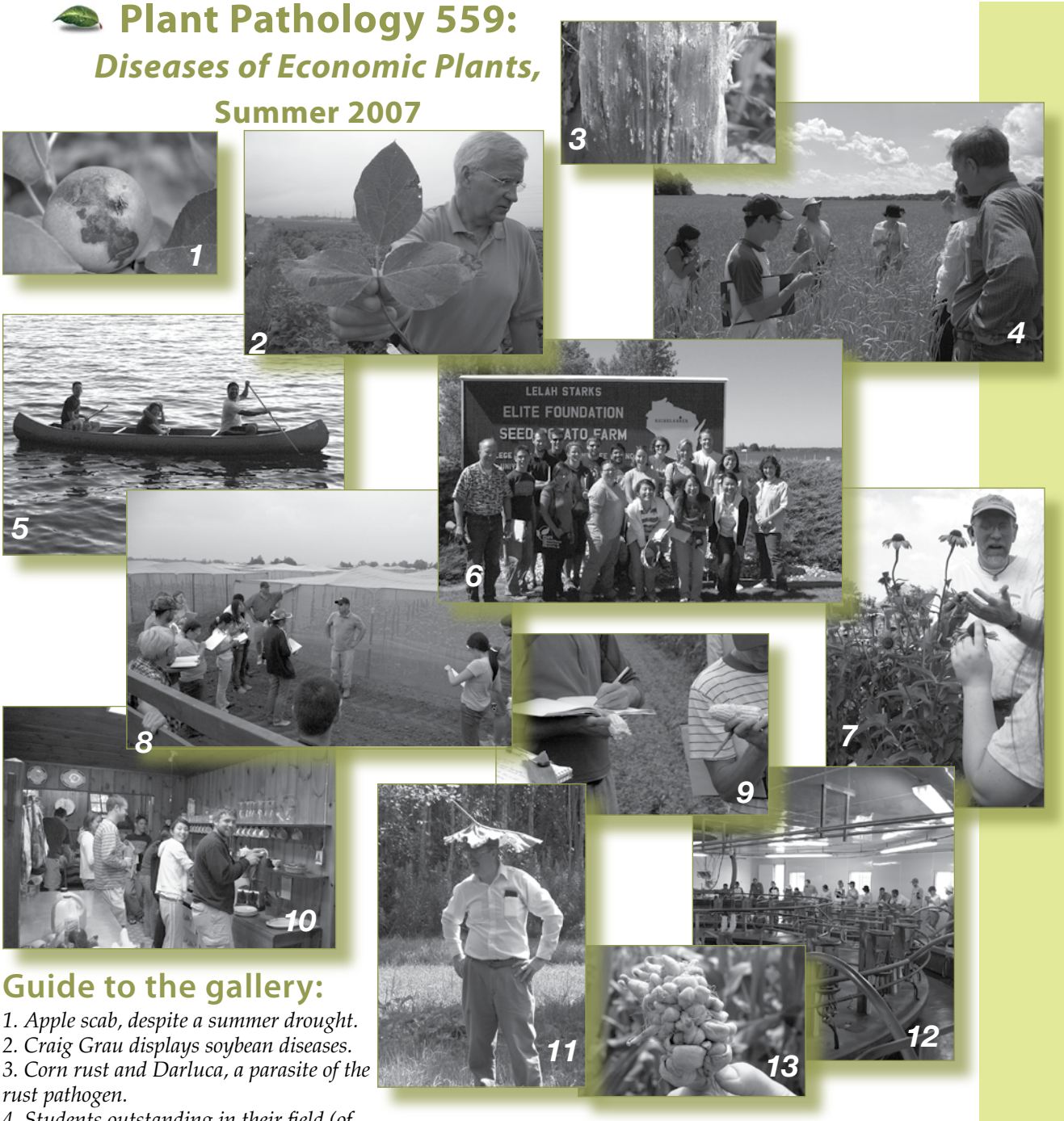
Regular workouts at the Natatorium pay off for John Andrews (left) with Murray Clayton.

What are the future challenges that lie ahead for APS? John would like to see APS become more aggressive in recruiting members, especially undergraduates, and also in its fund-raising efforts. The melding of plant pathology departments with other disciplines to form "plant science" or "plant protection" units leaves some APS members yearning for a sense of identity. "People in blended departments see APS as their common bond," says John. He believes that such members might be more eager to donate to APS than to their own universities, and he hopes that APS Foundation will become more proactive and strategic in its solicitation.

Finally, John sees great opportunity for growth within APS through its international mission. As President, he spearheaded an effort to better serve the society's international members, who comprise a third of APS membership. "We need to be present with conferences, journals, and other products and services outside the U.S. to remain relevant. The center of gravity in science and technology is shifting to the emerging countries."

John enjoyed representing APS at regional meetings and also in meetings with leaders of other scientific societies, agencies, and legislators. "The travel was demanding, but I appreciated having the opportunity to speak on plant pathology and to be an advocate for our science. And Wisconsin was in the limelight!"

Plant Pathology 559:
Diseases of Economic Plants,
Summer 2007



Guide to the gallery:

1. Apple scab, despite a summer drought.
2. Craig Grau displays soybean diseases.
3. Corn rust and Darluca, a parasite of the rust pathogen.
4. Students outstanding in their field (of spelt).
5. Paddling at Kemp Station (Ismael Badillo, Saori Amaike, Muthu Venkateshwaran).
6. PP559 class and instructors at the Starks farm.
7. Brian Hudelson discusses diseases of ornamentals.
8. In an onion field at Seminis Seeds.
9. Note taking and sweet corn tasting.
10.Too many cooks in the kitchen at Kemp.
11. Glen Stanosz modeling "green" fashions.
12. Tour of R&G Miller and Sons, an organic dairy operation.
13. Corn smut--always a favorite for plant pathologists.

Awards & Recognition (Cont. from p. 9)

Hye-Sook Kim, a Ph.D. student in the Charkowski lab, won a Riker Award.

Jon Palmer, a Ph.D. student in the Keller Lab earned an award from UW-LaCrosse for his M.S. thesis, which was done in the laboratory of Tom Volk.

Zakee Sabree, a Ph.D student in the Handelsman Lab was awarded a postdoctoral fellowship for excellence in research and teaching.

Mapi Marquez Villavicencio, a Ph.D. student in the Charkowski Lab, won the Jose and Silvia Amador Student Travel Award for the 2007 Annual Meeting of the AmericanPhytopathological Society in San Diego.

(Continued on p. 14)

Three Alumni Reflect on Their Time at UW

Linda Kinkel (left), Mark Boudreau (back), and Caroline Young (right) at the 1984 APS conference in Guelph.

In 1983, three young, aspiring plant pathologists came together as lab mates under the tutelage of Professor John Andrews in the Department of Plant Pathology. Linda Kinkel, Caroline Young, and Mark Boudreau, all idealistic and ambitious in different ways, supported each other in the quintessential graduate student experience—spending long hours in the lab, sometimes sleep and social life-deprived. The three recently reflected on their time together and theses influences that guided them down their successful career paths.

The three graduate students ended up together by chance, with the common interest each had in biological control and ecology.

"Caroline came from England, which brought a different perspective. I was a Midwestern girl from St. Olaf, a liberal arts college," said Linda Kinkel, now a professor of Plant Pathology at the University of Minnesota. "Mark came from a different place. Caroline and I came to do science, while Mark came to pursue sustainable methods. Mark's perspective made Caroline and [me] think differently about our work. Each of us evolved to see each other's worldviews in a way that was really neat."

Mark Boudreau came to UW after several years running an organic gardening program for the Urbana Park District. After earning his Master's at UW, he went to Oregon State University for his Ph.D., during which he was awarded a Fulbright fellowship in Kenya. Mark went on to teach at Eastern Illinois University, Warren Wilson College in North Carolina, and Clemson University. He now runs his own science consultation company based out of North Carolina and also pursues a career as a science writer.

"My experience [at UW] was very seminal and important. It was intense. The department is very good, world class, very challenging, with high standards. And John Andrews epitomized that approach, creating a bond among his students," said Mark about his experience in the department. The alumni each acknowledge that the mandatory meetings John held each Saturday morning with his graduate students were a "rite of passage," often followed by the three going to lunch together to share in each other's successes and concerns.

Caroline Young, now back in England, had a postdoc in the UK after earning her degree from UW. She now works for ADAS, a privatized equivalent of the U.S. extension service. The company provides independent research to farmers and the government, and Caroline is working on projects on field lettuce, barley, and oilseed rape. She credits UW for her plant pathology expertise.

"Linda and Mark were a very positive influence—they were always good at answering questions, always very giving of their time, and generally got me through the difficult times, whether they know it or not," adds Caroline. "I would like to add that there were many other people in Russell Labs who gave me lots of help and encouragement."

Now, Linda describes her efforts to be a first-rate parent and do first-rate science—what she aspired for over 20 years ago. And she continues to be inspired following the careers of her colleagues from UW. "Look at what they're doing, that is so cool. We shared that exact dream when we were 25. We had those conversations at 12 or 1 a.m. in the lab," says Linda. "None of us are CEO's, or work at Wal-mart, we are doing exactly what we came to Madison to do. Each doing the science we cared about then. John Andrews gave us the tools, UW-Madison gave the skills, and none of us lost the skills we came for. That's the inspirational piece, but they're doing it."

As far as advice for current graduate students in a similar lab like these three alumni, Linda encourages students to take advantage of this unique time. "Be passionate about it. It's a gift to be able to immerse yourself in your work. Part of this [experience] is your relationships with grad students. Embrace those people who can be so important in your life. The field is not that big, you will track each other for your whole life."

"We shared this great intense period of time in our lives together, all our hopes and plans and big dreams. I am proud of how we each have now spun off into very different productive lives in plant pathology or related fields, working hard to translate our education into something meaningful," Linda reflects.

Major Gifts (Cont. from p. 1)

tion for the university by becoming major benefactors both to the campus and to the Madison community. Although they lived modestly, the couple gave substantially to support arts and conservation organizations, as well as campus libraries and specific departments. After Oscar Allen passed away in 1976, Ethel Allen gave a gift in the 1980's that initiated the creation of the Allen Centennial Gardens.

During her time at the university, Ethel Allen also served as a faculty member for many years and eventually earned an honorary doctorate, which she nobly comments, "Should've been a shared degree," granted to both her and her husband.

Allen's award to the Department of Plant Pathology, with an endowment of over $4.9 million, was the largest single gift from her estate.

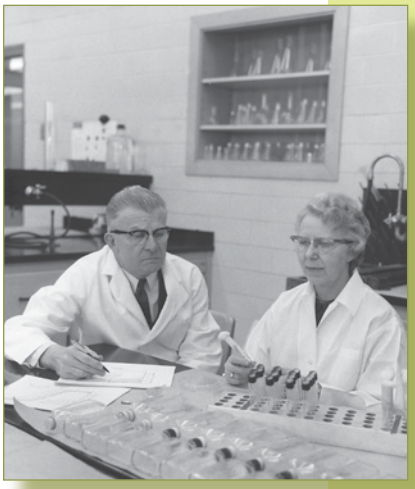
* * * *

Two distinguished contributors to the field of plant pathology, Dr. John and Flora Berbee, were honored by the unveiling of the fourth Distinguished Graduate Fellowship in Turfgrass Research. A reception was held in their honor at Blackhawk Country Club on June 21, 2007.

Dr. John Berbee, known to many as "Jack," received his Ph.D. from the Department of Plant Pathology at UW-Madison in 1954. He earned his bachelor's degree from the University of Toronto and his Master's degree from Yale University. During his tenure as a faculty member at Wisconsin he helped to develop and teach a course on managing forest diseases and insects, and served on numerous graduate committees addressing forest pathology, mycology, and virology issues. He was considered the foremost expert on diagnosis and control of conifer seedling diseases in Wisconsin's tree nurseries.

Flora Berbee received her undergraduate and Master's degree from Western Michigan University, and then went on to serve as a botanist and plant tissue culture technician at Yale University, where the couple met. Upon moving to Wisconsin, she taught zoology laboratory sessions and worked in the Department of Plant Pathology, utilizing radioactive isotopes to conduct research on oak wilt. She later worked in John Andrews' lab in Plant Pathology in the 1980's.

At the reception, Dr. Berbee reminisced about the hands-on work required of plant pathologists, "I enjoyed walking a cabbage field with [J.C.] 'Doc' Walker while he was selecting plants for further breeding. Though a member of the prestigious U.S. Academy of Sciences, he worked with his own hands in the field where the problem was. All useful work was honorable; it was not necessary to be seated at a big desk.



Oscar and Ethel Allen

Early in their academic careers, the Berbees received a USAID assignment and moved to Nigeria, where they lived for three years. During this time, Dr. Berbee taught botany courses to the first graduating class at the University of Ife, now renamed Obafemi Awolowo University.

The Berbees retired from the Department of Plant Pathology in 1987, and continue to reside in Madison. They are the parents of Mary Lee, Peter, and James, who were in attendance at the reception. Over 60 family members, close friends, and colleagues joined the festivities recognizing Berbees for this distinction.

"The turfgrass fellowship in the Department of Plant Pathology will support research in the land grant tradition for generations to come. For this reason we feel especially honored to have the Berbee name associated with it," said the Berbees at the reception.

The three previous Distinguished Graduate Fellowships were named for and presented to Wayne R. Kussow, Robert C. Newman, and Terry and Kathleen Kurth. The fellowship will support a graduate student conducting research related to turfgrass pathology.

* * * *

Over the past several decades, the Department of Plant Pathology at UW-Madison has distinguished itself as a significant player in the development of research on turfgrass. In fact, two of L. R. Jones' doctoral students, John Monteith (Ph.D., 1923) and Arnold Dahl (Ph.D. 1931) both did their doctoral work in turf pathology, and went on to contribute substantially to the literature on turfgrass disease management.

(Continued on p. 14)

Major Gifts (Cont. from p. 13)

Earlier this year, in response to a thriving industry and demand for first-rate research, the department made plans to hire a new faculty member in turfgrass extension pathology. Due to budget limitations, however, the college was not able to release such a position until 2009. Thanks to a generous $100,000 gift from the Wisconsin Turgrass Association, however, the position was released last summer, and interviews have just been completed.

The value of turfgrass to the United States and Wisconsin for recreation, sports, and landscaping is significant. Turfgrass ranks third among cultivated crops in the U.S. and is the fifth largest crop in Wisconsin. It is nearly a billion dollar industry in the state, with over 30,000 people employed in turf production.

Despite its recreational and economic significance, there is still little known about the pathogens that threaten turfgrass. Industry leaders, the plant pathology faculty, and students have expressed an interest in expanding research and extension activities connected with turfgrass.

"Thanks to very generous support from the WTA, our department has been able to launch a new and major initiative to enhance our turfgrass program," reports Department Chair Murray Clayton. "Being able to search for a faculty candidate now, instead of having to wait, will really help our department maintain and enhance its excellence."

Additionally, although the turfgrass industry continues to grow, support at universities in neighboring states appears to be waning. Considering the UW-Madison's history of performance in turf research and extension over the years, there are real opportunities for the department's program to provide leadership throughout the region.

Clayton notes, "Our historical strength and commitment to turfgrass pathology, and the high value the industry puts on our activities, mean that we are in an excellent position to move forward."

The new position will call for a distribution of 70% towards extension work and 30% time on research. The large extension component will help satisfy the industry's increasing eagerness for more support and applied research on turfgrass pathology. The research component will support the development of additional knowledge and research affecting turfgrass, and will allow the faculty member to advise students in a research path that is increasingly desirable.

The faculty member will collaborate with College of Agricultural and Life Sciences staff and faculty, Extension faculty, and industry leaders including sod producers, members of the agribusiness community, and golf course superintendents to develop programs and drive research. The reputation of the department and its state-of-the-art facilities, including the O.J. Noer Turfgrass Research and Education Facility, have proven to be enticing to candidates.

A candidate was recently chosen by the department, and negotiations are underway.

Awards (Cont. from p. 11)

Facutly and Staff Awards & Recognition

Taylor Dagenais, a postdoctoral researcher in the Keller Lab, won competitive acceptance into a molecular mycology course at Cold Springs Harbor.

John Gaska, an outreach specialist affiliated with the Departments of Agronomy and Plant Pathology was recognized by the College of Agricultural and Life Sciences for outstanding contributions to the Agricultural Research Station.

Brian Hudelson received the Agricultural Research Station Recognition Award for Service.

Robyn Perrin, a postdoc in the Keller Lab, received a travel award from Genetics Society of America to attend the 24th Fungal Genetics Conference at Asilomar.

Denise Smith, a research specialist in the Stanosz Lab, won an Academic Staff Professional Development grant.

Andrew Bent was promoted to full professor.

Jo Handelsman was recently elected president of the newly-founded Rosalind Franklin Society, an organization that advances the role of women in science.

Nancy Keller has been awarded this year's Kellett mid-career award for the biological sciences. She was also named Fellow of the American Phytopathological Society for significant contributions in plant pathology.

Ann MacGuidwin was 2006-2007 President of the Society of Nematologists, an international organization formed to advance the science of nematology in both its fundamental and economic aspects.

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).

❏ Please charge my gift of $_____ to my: __Master Card __Visa __ American Express
Card number: _____ Expiration Date:_____
Cardholder's name (please print): _____
Cardholder's signature: _____ Date: _____

Name: _____ Phone: _____
Address: _____ City, State, Zip: _____

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 2008 *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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