Message from the Head

Dear Friends:

Another year has passed and I am pleased to state that the Department of Plant Pathology at Minnesota is doing well. Although we have taken some financial setbacks like most other major universities, our faculty, staff, and students, have risen to the challenge. We are an excellent department and we take our responsibility to serve the citizens of the State seriously.

I believe we will need to work somewhat differently than we have in the past. Traditional sources of funding for the University are shrinking steadily. A larger portion of our research financial support now comes from State agencies such as the Legislative Commission on Minnesota Resources, the Agricultural Utilization Research Institute, and from commodity groups. These funding sources point to the need for developing partnerships with producers, private businesses, State agencies, and faculty from other disciplines. This type of support also calls for an interdisciplinary focus on solving problems in agriculture which is very positive.

We have again had some changes in our faculty. Dr. Roy Wilcoxson retired after an extremely productive and successful career. Roy and Iva have been spending the last year in the Chicago area working for the Mormon Church and are due to return back to the Twin Cities in September where they will continue to make their home. At the 1993 annual meeting of the American Phytopathological Society, Roy was elected a Fellow of APS. Dr. Elwin Stewart has left the Department to become Head of the Department of Plant Pathology at Pennsylvania State University. Elwin’s contributions as a teacher and researcher in mycology will not be easily replaced. Both Roy and Elwin have left their mark on the Department and we thank them for their many positive contributions.

We have been given permission to hire a Small Grains Pathologist to refill the Wilcoxson position. We are currently in the middle of that search process. The deadline for applications was December 1, 1993. The devastating Head Blight (scab) epidemic on wheat and barley has provided further evidence of the importance of refilling this position in the Department.

An extremely important event in the last year was the revision of our curriculum in the Department. One of the primary reasons for the curriculum revision had to do with the need to become more involved at the undergraduate level than we have in the past. We want to provide disease management information and education to a broader segment of our population than has been done in the past. As a discipline, we have not been aggressive enough in promoting plant pathology to the general public, especially the urban sector. We need to have more opportunities to explain how plant pathologists contribute to society. In addition to traditional students, we need to be more aware of the site-bound, non-traditional students who live throughout Minnesota and work full time and are unable to come to the Twin Cities Campus. I believe we are now on the verge of overcoming some of these distance delivery barriers with the development of such technology as two-way interactive television. The new curriculum that was established includes several courses that should be more attractive to both traditional and non-traditional students.

The quality of our graduate student population continues to be excellent. They are collectively a highly motivated, energetic group that enrich the Department through their activities and enthusiasm. In September, they organized a symposium on managing plant disease in a sustainable agriculture. This symposium was the fifth in a series of graduate student-coordinated symposia that the Department has sponsored.

We regret to report that Dr. and Mrs. Clyde Christensen passed away October 11, 1993. The contributions of Dr. Christensen to the Department and to the University in teaching and research resulted in his being awarded the Regents’ Professorship, the highest award that can be bestowed upon a faculty member at our University. He will be remembered for his significant contributions to society in the areas of grain storage pathology, forest pathology, and mycology. In accordance with the wishes
of their family, contributions to the Department in memory of Clyde and Katie Christensen will be used to purchase new publications for the Plant Pathology Library.

Let me finish this letter by again telling you how much we appreciate the moral and financial support of all of our alumni and friends. I am truly humbled whenever I speak to alumni of this Department and learn of their loyalty for this institution. It encourages all of us in the Department to do the very best we can to provide quality education, research, and Extension programs for those we serve. We are extremely grateful for your continued support. As always, I invite each of you to come and visit the Department whenever you can. I sincerely hope you enjoy reading the following pages of this year's Aurora Sporealis. We sincerely appreciate the efforts of Dr. Richard Meronuck, the office staff, and all who contributed to writing and assembling the 1993 edition.

Sincerely,

Philip O. Larsen

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Dear Friends:

We lost a good friend and colleague this summer with the passing of Clyde Christensen. Clyde was well known in teaching, and research in mycology, forest pathology, grain storage pathology and mycotoxicology. I remember him as my advisor when he would show me all the grain storage fungi once, and expect me to remember them. He wanted good science and he wanted the "good science" to be done quickly. When he was writing, one would find his office door closed and hear his typewriter. Sometimes I found it necessary to talk to him during these writing sessions. If I knocked on his door he would fling the door open so quickly that it would scare me to death! Then he would look at me sternly and ask me what was on my so called mind. He always wanted to know what was on his students mind and I found that he respected those ideas.

I had the opportunity to work with Clyde for a few years after his retirement. During this time he conducted a series of experiments which significantly contributed to my extension programs and we also wrote a book together. It was good having him work in this capacity as we continued to satisfy our curiosity about things we always wondered about.

Clyde was a prolific writer he has about 222 publications to his credit. I always found his writings to be both informative and entertaining. One remembers his writings after reading them.

I will miss Clyde, his friendship, humor and counsel.

Sincerely,

Richard A. Meronuck
Editor

Memorial Fund for Clyde and Katherine Christensen

Clyde Christensen, Regents' Professor, had a long distinguished career at the University of Minnesota. His career represents scholarship of the highest standards. Katie supported these efforts to her fullest, which Clyde always acknowledged. In memory of Clyde and his scholarly pursuits, the above memorial fund is established. The purpose of the fund is the acquisition of scholarly journals and books specifically for the Plant Pathology Library in the College of Agriculture.

All contributions to this fund should be sent to:

University of Minnesota Foundation
Attn: Sue Shepard
201 Coffey Hall
1420 Eckles Avenue
St. Paul, MN 55108
COVER STORY

Clyde Christensen had a long and distinguished career at the University of Minnesota. Because of his legacy in the pursuit of truth we are dedicating this issue *Aurora Sporealis* to his memory.

Clyde had his first taste of plant pathology in 1928 when after his junior year in the College of Forestry at the University of Minnesota, he worked as a field and laboratory assistant in the Department of Plant Pathology. During his senior year he took a course in forest pathology and after a brilliant performance in the class was hired by E. C. Stakman as an instructor in forest pathology. During the next 15 years his work was in forest pathology. In the mid 1940s he started his work on several problems involving fungi in cereal grains and their products.

In 1951, Clyde Christensen wrote *The Molds and Man* which has become well and favorably known wherever mycology is known. Many consider this writing as remarkable because it is written so convincingly about so large and diverse a group of fungi and their relations, good and bad, to human affairs. Christensen started learning about fungi during the summer of 1926 at the end of his freshman year in college, while a temporary assistant in white pine blister rust control work in the Quinicine National Forest, Idaho. Once started, Christensen never stopped learning about fungi, he wanted to know all about them. He wanted to know the effects of soil and climatic conditions on the fungi and he wanted to learn about the mutual relations between the fungi and other living organisms, including humans. Not only did he learn a lot about fungi but he put much of his practical knowledge to practical use.

By 1950, Dr. Christensen had become an exceptionally productive scholar in the broad field of pure and applied mycology. Professionally a forest pathologist, he had made notable contributions to knowledge of forest, shade and certain fruit-tree diseases. He had studied the deterioration of felled timber, and of wood and wood products in their manifold forms and uses. He had contributed to an understanding of intramural dissemination of fungi in relation to allergenic troubles in human beings. He also had produced in a War Production Board project at Minnesota, strains of *Penicillium* sp. which produced three times as much of the antibiotic, penicillin, as those then in use. He had expanded knowledge regarding edible mushrooms and published guides to their identification. By this time he
also was working his studies on the role of fungi in the post harvest destruction or deterioration of food and feed grains and their products.

Dr. Christensen earned his greatest distinction, which is worldwide, by his contributions to the solution of grain storage problems and their multiple ramifications. His first recorded publication in this field was in 1946. Since then he has been sole or joint author of some 222 publications on a wide range of subjects including the field of storage molds and their for-reaching implications for humans and animals.

Dr. Christensen certainly has earned a position of eminence in his major field of endeavor. He never avoided a job because it was difficult; he was a good team worker and he dedicated his talents to useful service. Evidently, he felt an obligation to serve his university and his fellow human as best he could; and he did serve them well, but he never talked much about his dedication to service.

Although widely known for his research, Christensen was also an exceptionally effective teacher, for both undergraduate and graduate students. He is universally admired by his former students. Completely free from affectation, Christensen was on easy terms with his students, but not easy on them. He maintained high standards of scholastic performance and of personal conduct in his classes. He was always in control, spontaneously witty, and almost always inspiring.

Dr. Christensen earned the Regents Professorship, and was honored by other organizations. He was a member of the Minnesota Chapter of Sigma Xi and elected as a fellow of the American Phytopathological Society. He was also elected as an honorary member in the American College of Allergists and to Phi Beta, an honor society in the field of veterinary medicine.

From: C. M. Christensen Molds and Man, (Fig. 1) University of Minnesota Press 1975.
According to Mrs. Kaufert this photo was taken about 1935. Left to Right: Frank Kaufert, Roland 'Rolo' Lorenz, Clyde Christensen, and Ralph Lorenz.

Clyde M. Christensen near Plant Pathology building about 1948.
DEPARTMENT GROUP PICTURE

Front Row - left to right: Jason Brantner, Dariush Danesh, Delores Huebner, Janell Stevens-Johnk, and Tsitsi Ndowora.

Second Row - left to right: Nevin Young, Connie Post, David Rizzo, Francis Pfleger, Cecilia Jones, Junping Chen, and Tarkus Suganda.


Fourth Row - left to right: Chad Behrendt, Andrew Ryan, Dean Malvick, Deborah Samac, Richard Woodward, Jean Williams, Ward Stienstra, and Elwin Stewart.

Fifth Row - left to right: Kurt Leonard, Pedro Figueroa, Ernest Banittari, Brendt McCallum, James Kurle, Dean Herzfeld, and Timothy Clark.


Graduate Student - Nora Altier, Dionicio Alvarado, Ligia Ayala, Julie Beale, Mohamed Bouhida, Vergel Concibido, Kasia Duellman, Eric Eckwall, Mervat El-Wahab, Laszlo Gyenis, Dehong Jiang, Cecilia Jones, Kathryn Kromroy, Kuo Chih Lin, Akhilesh Mishra, Mary Moberg, Miriam Newton, Javier Plasencia, Andrew Ryan, and Bruna Bucciarelli.

AFSCME/Civil Service - Dann Adair, Gilbert Ahlstrand, Gerald Amundson, Steven Anderson, Ann Arendt, Erik Biever, Todd Bumers, Marguerite Clemens, Roxanne Denny, Debra Baden-Dragne, Amar Elakkad, John Haight, Cynthia Herrick, Odette Holter, Leslie Johnson, Kimon Karelis, David Lange, Joleen Magrum, Brian McCullough, Elizabeth Oson, Sarah Rizzo, and James Rowe.

Federal Civil Service - Mark Berres, David Casper, Jacolyn Morrison, Christine Newby, Gerald Ochocki, Rosalind Richards, and Shawna Spindler.

Editors note: The 1993 departmental photo is the third annual group picture. It was taken with a 4 x 5" format view camera. Special thanks to our photographer, Gilbert G. Ahlstrand.
OLD TIMERS (excerpts from letters to the editor)

Jeri J. Ooka, PhD 1975. Hurricane Iniki damage from a year ago is more or less fixed and the tree trimmers are working on cutting growth from beneath the power lines. So nature is doing okay in the recovery department. Some people are still living in tents and the economy is still in a precarious state. My lab won't be repaired for awhile yet. But it is functional for the most part. It is not the facilities which are primary impediment to progress in my case.

Unlike the exciting and wet spring you all have had it has been very dry here and we are praying for rain (without wind of course). Mary moved her mom from Pennsylvania to Nebraska just before the floods peaked in the Des Moines area. They made it through with only an 80 mile detour around Des Moines.

Mary has been back and forth to the mainland for various work and play related things. At the moment she is in England on vacation for two weeks. She will be back a week then head off for a conference in Virginia.

We got a note from Doc Eide in early August. I hope that some from the Department are visiting and trying to maintain his good humor as well as helping him with the trials of everyday living.

George W. Fischer. In the spring of 1941, when I was in the employ of the USDA, I was sent from Pullman, WA, to the "Tottering Tower" for several weeks to work with Dr. M. N. Levine on a comprehensive review of the literature pertaining to stem rust on grasses. During this period I became well acquainted with the faculty and graduate students, attended the seminars, etc. I became an "honorary member" of the Department and as such have been receiving *Aurora Sporealis* ever since. I have avidly read each issue, delighting to read about the happenings and the comings and goings of the faculty. I have been feeling like I owe the Department some sort of recognition for this now long established honor. Hence, I propose to send to the Department several copies I have left of my published books for the Department Library. One of these, the most recent and most colorful is far removed from the subject matter and my other books, and the Department may not particularly want it. It is a product of my hobby for the past twenty-five years.

Louis T. Palmer, MS 1965; PhD 1968. After 2 1/2 years in Bangladesh as a consultant, I returned to California. I was hired by Harris Moran Seed Co. in October 1992 as a Plant Pathologist/Station Coordinator for their research farm in Ruskin, Florida. We are located about 25 miles south of Tampa. I'm working with three breeders on the diseases of tomatoes, peppers, eggplant, squash, pumpkins, melons and broccoli. The farm is 80 acres with two crops per season. We also conduct some summer tests for heat tolerance. Should anyone be traveling through this area please give me a call.

Allen G. Newhall. I am 99 years old and in 10 more months I will be 100. Seventy three years of work on control of plant diseases has been scads of fun. Stakman was my first spark plug. My good friend Professor Carl Boothroyd who once taught a course in the Department brought me a copy of your letter asking for information of possible interest in *Aurora Sporealis*. Stakman in 1920 introduced me to Whetsel who had started the first Department of Plant Pathology and had money for a fellowship that supported a field laboratory for 4 summers where I worked on finding controls for much grown vegetables. I then spent 4 years in Ohio improving the control of greenhouse grown vegetables with steam heating tile lines. Coming back to Cornell with steam, I spent one, two year leave in the Philippine College of Agriculture giving a course "Controls for Plant Diseases". In other sabbaticals I worked in Arizona on a banana disease for the United Fruit Company, in the Philippines on controls of a leaf disease of coffee, and another on a leaf disease of tea. I spent 2 years in Costa Rica developing an improved control for the product disease of cacao. For this work I gave reports at two International Conferences, one in Brazil and one in Gaza, West Africa.

Stein Telneset, PhD 1963, and Mrs. Telneset arrived in the Department October 15, 1992 for a visit. Stein attended a conference on Ecological Interactions and Biological Control that was held on the Minneapolis campus. Stein is also interested in meeting people working on antagonism and biological control. Dr. Telneset is in charge of seed certification in Norway. That includes all kinds of seed - cereals, vegetables, etc., including potatoes.
Alan R. Pierce, former Scientist in the Department says this spring, I will be completing a 2 year program in nursing education in the best program offered in South Dakota. They work us hard and many have dropped out, but I have thus far been successful in both the academic and clinical (hospital) areas of my education. My first love is mental health (psychiatric) nursing and I will first seek employment at the Human Services Center (formerly State Hospital for the Insane) in Yankton, SD. My wife, Linda, is currently working as a counseling psychologist here in Sioux Falls. She will become a Minnesota licensed psychologist in a few weeks as the agency here agreed to pay for needed education toward that license in order to wrest her services away from the mental health facility in Luverne, MN. She is extremely capable and I look forward to sharing career interests with her once again (we met as students in the anthropology department in Minnesota). I've rambled on about psychology as I remember that you hold an interest in that direction. When I look back on my career in the Department, I am grateful for your grasp of the complexity of certain situations, and the creative way you resolved them. I truly enjoyed the years I was affiliated with the Department (Dr. French), and my other even "older" friend Carl Eide.

Malcolm C. Shurtleff, MS 1950; PhD 1953, retired August 30, 1992 at the mandatory age of 70 after over 42 years as an Extension Plant Pathologist (the last 32 at the University of Illinois). Since retiring he has taught an off-campus extramural course each fall. Other activities include a busy consulting schedule, winter Pesticide Applicator Training Meetings on turf grass and woody ornamentals, writing a disease chapter for a new PAT interiorscape manual, writing several magazine articles for Grounds Maintenance magazine, preparing new color picture sheets of plant diseases, and continuing writing sections on a three-volume Plant Disease Diagnosis tome for the APS Press. Mal's wife, Margaret, a former head secretary in the Department, has advanced multiple sclerosis and has been in the local county nursing home for over three years. Amazingly, she is not visibly depressed, never complains, her mind is sharp, and she enjoys Mal's reading Aurora Sporealis to her along with the daily newspaper and magazines.

Bob Rees, former Visiting Scientist. The approach of Christmas has made me again think of my time in the USA during 1992. I enjoyed my all too brief period in the Department at St. Paul and have fond recollections of the friendship shown by so many people. I would like to wish Dr. Larsen and all in the Department a peaceful Christmas and a happy and fruitful 1993.

John E. Cross, PhD 1965. The University of Minnesota was well represented at the Seed Health Testing Symposium held in Ottawa in August 1993. This Symposium was sponsored by the Plant Disease Committee of the International Seed Testing Association (ISTA). Minnesota-trained participants included Tom Mew, MS 1968; PhD 1972, International Rice Research Institute, Dick Morrison, MS 1968; PhD 1971, Sakata Seed, Denis McGee, (Research Associate), Iowa State University, and John Cross, Asgrow Seed. Denis and John were both official representatives of the American Seed Trade Association (ASTA). The Symposium attendees were primarily from public laboratories, together with seed industry pathologists from the Netherlands, Canada, and the U.S.

D. Arny, BS 1939. Minnesotan's at the UW-Madison. Rick Durbin, PhD 1957, retired writing history of Wisconsin River. Earle Hanson, MS 1939; PhD 1942, retired and is an active volunteer at Lutheran retirement home. Companion for folks in their last days. Craig Grau, MS 1971; PhD 1975, is Chair of the Department. Al Ellingboe, MS 1955; PhD 1957, is teaching a summer field course. Deane Arny, retired and is busy volunteering at Red Cross, Nature Conservancy, UW Arboretum. Had Beginning Plant Pathology with Carl Eide and Mat Moore, Disease Control with J. G. Leach and Diseases of Field Crops with J. J. Christensen all in the late 1930s. On a recent canoe outing in Upper Michigan used the canoe country flower book by Loegering and DuCharme.

Larry J. Littlefield, PhD 1964. After almost 8 1/2 years as Department Head at Oklahoma State University, I got back to some research this past summer; what a delightful experience that was. I took a three-month mini-sabbatical to work on ultrastructure of soilborne wheat mosaic virus and its vector, Polymyxa graminis, at Michigan State University. The work included immunogold labeling, cryo-scanning electron microscopy, laser scanning confocal microscopy plus light microscopy of virus inclusions. I hope to continue part-time research while maintaining the Department Head position at Oklahoma State University.

Roy D. Wilcoxson, MS 1955; PhD 1957. Iva and I would like to wish a Merry Christmas to all of you in the Department. While we enjoy being in Chicago at the Temple, we do miss home and familiar faces. Happy New Year to all.
Linda M. Treeful, PhD 1988. Announcing the official, January, 1993, opening of a plant pathology consulting business in her home at 2203 Valley View Place, St. Paul, MN 55119. Seven days a week, including evenings, I am available to fill your short term, temporary, or emergency laboratory personnel needs.

Other specialty services offered include on-site plant disease diagnosis for homeowners and commercial growers of field, fruit, vegetable, turf and ornamental crops, bacteriological and mycological identification & culture work, virus and nematode identification, and photomicrography.

Call me if I can help you, or give my name to a grower who needs on-site help.

Lawrence I. Miller, MS 1938; PhD 1955. In August, 1992 I had a brief visit with Chuck, PhD 1954, and Arly Logsdon in Palmer, Alaska which resulted in numerous reminiscent discussions of 'good old days' at St. Paul. In April, 1993 I visited the nematology section of International Potato Center at Lima, Peru and presented a paper at the 25th Annual Meeting of Tropical Nematologists (ONTA) at Cochabamba, Bolivia. While I was collecting nematodes at 13,000 feet I found that coco tea was very "soothing".

Morris N. Teller, MS 1946; PhD 1948. I have fond memories of my four years (1944-48) in the Department of Plant Pathology. The scholarly and informal methods of training under Stakman et al. built an approach and attitude towards research methodology which remained with me throughout my career. These carried me into my first professional position, Antibiotic Research, and from that discipline into Cancer Research. For that I am extremely grateful.

In addition, Stakman continually attempted to broaden our horizons. I shall always remember the afternoon coffee breaks (and the undrinkable coffee?) with Stakman raising the initial question followed by the phrase - Antibody?! He kept us in awe of his encyclopedic mind and his wanderings into diverse and esoteric topics to stretch our minds.

My first professional endeavors moved me into, essentially, a new direction, away from Plant Pathology, resulting in my lack of correspondence with the Department. However, I avidly read each issue of Aurora Sporealis, the happy events and the sad. Tempus fugit; not many of my former confreres are left.

Joe F. Hennen, Department of Botany & Plant Pathology, Purdue University, West Lafayette, Indiana, visited the USDA/ARS Cereal Rust Laboratory, July 19, 1993, and took part in discussion of rust classification and evaluation. Dr. Hennen is Curator of the J. C. Arthur Herbarium, the world's best collection of specimens of these important plant pathogens, now containing over 100,000 rust specimens. He was John W. McCain's PhD major professor.

While Dr. Hennen was here, he and John put the finishing touches on a co-authored manuscript to be published by Mycologia. Four new species of rusts are described in this manuscript. Two of them are to be named in memory of Minnesota Old Timers: Ibra L. Conners, PhD 1923, (1894-1988), to worked with wheat stem rust race surveys in the 1920s, and Dr. John F. Tuite, MS 1953; PhD 1956, (1927-1991), a graduate student of Dr. Clyde M. Christensen.

Joseph W. Southern, MS 1973; PhD 1979. Thank you for the Aurora Sporealis. We completed the field survey for a Thai 19 province rice crop production and protection survey for 5 locally based multinational crop protection companies. The field surveying started last year in October with the last respondent being interviewed on August 31st. We covered 3 of the 4 major regions of Thailand. Thailand is about 90% the size of Texas. Thai farmers I found are just as sharp as our farmers, except they are handicapped by lack of an Agricultural Extension Service. While some research is done, at the experiment stations, but the information accumulates without flowing to the end user. The contribution of the American agricultural extension system to the economic and social progress of the United States has been vastly understated, when one compares Thailand, that has more natural resources, in terms of soil and water, than do a number American states, who have far less of these natural resources, but are more advanced agriculturally, then one really begins to understand the true significance of American agricultural research and its extension system, and to why America is the economic powerhouse that it is. At the end of March next year I will have been in Thailand for 10 years. Our oldest daughter is now attending a Catholic elementary school in North Miami and staying with my mother.
VISITORS - 1992
August 18, 1992, Flavio A. Lazzari, MS 1988; PhD 1990, Rua Joao Antonio Prosdocimo, Parana, Brazil, South America
August 26, 1992, Robert N. Campbell, BS 1952; MS 1954; PhD 1957, University of California–Davis, Davis, CA
August 28, 1992, Clint L. Kohls, MS 1981; PhD 1985, American Cyanamid Company, Princeton, NJ
September 3, 1992, Eduardo Agosin, Catholic University, Santiago, Chile, South America
September 16, 1992, Hamed K. Abbas, MS 1977; PhD 1987, USDA/ARS Southern Weed Science Laboratory, Stoneville, MS
September 16, 1992, Desiree Menancio-Hautea, UPLB, Institute of Plant Breeding, Philippines
September 16, 1992, Christian A. Fatokun, Department of Agronomy, University of Ibadan, Ibadan, Nigeria
October 8, 1992, Luis Sequeria, Department of Plant Pathology, University of Wisconsin, Madison, WI
October 20, 1992, Stein Telneset, PhD 1963, State Seed Testing Station, Råbyrv. 4, Ås, Norway
October 26, 1992, Hamed K. Abbas
October 26, 1992, Dennis A. Johnson, MS 1976; PhD 1978, Washington State University, Prosser, WA
October 30, 1992, Helmut Bochow, Humboldt University, Berlin, Germany
November 9, 1992, Bent Skovmand, PhD 1976, CIMMYT, Mexico
1993
January 5, 1993, Cheryl Engelkes, PhD 1991, USDA/ARS Biocontrol of Plant Diseases Laboratory, Beltsville, MD
January 13, Judy A. Thies, MS 1982; PhD 1988, USDA/ARS U. S. Vegetable Laboratory, Charleston, SC
January 15, German Hoyos, MS 1987; PhD 1990, Soil and Plant Laboratory de Colombia, Inc., Bogota, Colombia, South America
March 19, Julio Huerta-Espino, PhD 1992, CIMMYT, Mexico
March 13, Michael Coscio, Medtronic, Minneapolis, MN
March 14, T. H. Nicholson, DaKupp, Tresta, Shetland, United Kingdom
May 12, Kenneth T. Leath, MS 1965; PhD 1966, USDA/ARS US Regional Pasture Research Laboratory, University Park, PA
June 15, Hamed, Jean, Noah, Samuel, and daughter Abbas, USDA/ARS Southern Weed Science Laboratory, Stoneville, MS
June 18, Howard Bissonnette, MS 1956; PhD 1960, Panama City Beach, FL
July 22, Mohamed Besri, Institut Agronomique et Veteernaire Hassan II, Rabat, Morocco
August 2, Edward W. Ryan (Ted), PhD 1961, Agricultural Institute, Dublin, Ireland
August 6, Paul Teng, IRRI, Los Banos, Philippines
August 10, Roland F. Line, BS 1956; MS 1959; PhD 1962, USDA/ARS Washington State University, Pullman, WA
August 18, Bruce Potter, Cargill, Morris, MN
August 27, Beatriz Alida Pérez, PhD 1991, Inta, Buenos Aires, Argentina, South America
September 3, Axel L. Andersen, BS 1937, East Lansing, MI
September 20, Howard and Karwyn Bissonnette
October 22, John Gronquist, MS 1977, St. Bonifacous, MN
October 22, Sarah Rizzo, Cross Plains, WI
October 22, Laura Sweets, MS 1977; PhD 1981, Pillsbury/Green Giant, LeSueur, MN
November 16, Bruce Potter
- Ann M. Arendt + Marguerite M. Clemens

CORRESPONDENCE
Dr. C. M. Ochoa, MS 1954, of the International Potato Center, in Peru, wrote to thank the Department for his receipt of the Distinguished Alumnus Award from the Department. He wrote “I must confess that this generous nomination of my former Plant Pathology Department has a special significance for me and it is indeed appreciated. I still remember so well all the help and assistance that I received from Drs. Stakman, J.J. Christensen, C.M. Christensen, Kernkamp, King, Moore, and especially from Dr. Carl Eide, my dearest advisor, a great scientist and a wise and noble gentleman, to whom I owe my professional success. My sincere thanks to all of you from the bottom of my heart.”

OBITUARIES
Gertrude Battell, Librarian in the Department of Plant Pathology during the late 1950’s died from cancer, January 20, 1993, at age 82. In 1965, she was transferred to the Minneapolis Campus to become Director of Interlibrary Loan until her retirement in 1976. Her husband Fred was a Librarian for the North Central Forest Experiment Station on the St. Paul Campus until his retirement. Gertrude was a graduate of Averett College, in Virginia, and of the University of Minnesota. She had worked as a librarian for the public libraries of New York City and Hagerstown, Maryland, before coming to Minnesota. - Thor Kommedahl
On 15 November 1992, those concerned with resistance to rust in oats lost a long-time colleague and friend. Paul G. Rothman spent his career with the United States Department of Agriculture, Agricultural Research Service, transferring resistance from primitive to cultivated oats. He died at the age of 69 after a brief illness.

Paul Rothman was born on 16 April 1923, in Detroit, MI, and was an honors graduate of Michigan State University, East Lansing. He earned a B.S. degree in Farm Crops, in 1950, an M.S. degree, in 1952, in Farm Crops with a Botany minor, and a Ph.D. degree from the Department of Plant Pathology, University of Illinois, Urbana, in 1955, with a Major in Agronomy/Plant Pathology. Paul was employed by USDA-ARS Oat Investigations as an agronomist in 1955 and was assigned to Stoneville, MS. At Stoneville, Dr. Rothman was in charge of studies of the agronomic and pathological phases of winter oat investigations with an emphasis on stem rust resistance.

During July 1967, Paul Rothman was transferred to the USDA-ARS Cereal Rust Laboratory at the University of Minnesota, St. Paul. Here he spent the next 19 plus years working first on stem rust resistance in oats and then, after Matt Moore's retirement in 1973, on both stem and crown rusts of oats. Matt served the university as the oat pathologist for 44 yr. At the Cereal Rust Laboratory, Dr. Rothman gained international recognition for his oat germ plasm lines, which generally had combined resistance to stem and crown rusts and BYDV. Many of these lines were the result of many hours of tedious work and waiting for reluctant diploids and their progenies to germinate and then the long process of selections for the few resistant lines that were fertile and genetically stable and that could be crossed with cultivated hexaploid oats.

Dr. Rothman was an adjunct faculty member of the Department of Plant Pathology at the University of Minnesota, where, over the years, he was a regular participant in seminars. He was also a part of the oat-breeding team at the university and, with Matt Moore, was always pressing for increased use of disease resistance in the program. He was a member of Alpha Zeta, Phi Kappa Phi, Sigma Xi, the American Phytopathological Society, the International Society of Plant Pathology, the American Society of Agronomy, and the Crop Science Society of America. Paul greatly enjoyed a visit to Tel Aviv University, Israel, in 1980, the cooperative program in which he took part with the cereal group in Mexico, and his long relationship with Quaker Oats and other oat workers.

Dr. J. M. Daly, (PhD, 1952) was the C. Petrus Peterson Professor of Biochemistry and Nutrition at the University of Nebraska, Lincoln, and died August 18, 1993 following a period of serious illness from a stroke that occurred a few years ago. Among other honors, Dr. Daly was an APS Fellow (1976) and a recipient of the E. C. Stakman Award (1986). Cards may be sent to his wife, Mrs. Cecilia Daly, 1022 Daybreak Circle, Lincoln, Nebraska 68505. Memorials may be sent to the Dr. J. M. Daly Fund, Plant Pathology Department, University of Nebraska, Lincoln, Nebraska 68583. This is a fund Dr. Daly initiated for the graduate students in his department.

National Needs PhD Fellowships Available

Two, three year PhD student fellowships from the USDA National Needs Graduate Fellowship Program were awarded to the Department of Plant Pathology through a grant proposal written by Professor Richard Zeyen. The proposal title was "Towards New and Novel Plant Resistances to Diseases Caused by Biotrophic Fungi: Molecular Genetics of Biotrophic Fungal Pathogens". Grant collaborators include Drs. William Bushnell, James Groth, Kurt Leonard, Deborah Samac, Les Szabo and Nevin Young of the Department of Plant Pathology, Drs. David Somers and Howard Rines of the Department of Agronomy and Plant Genetics, and Dr. Alan Smith of the Department of Horticulture. The fellowships come from the Plant Biotechnology section of the National Needs Program.

The fellowships will be filled in the 1993-94 academic year and each supports a PhD candidate for 36 months. Fellowship appointments can only be held by United States citizens who enroll and pursue a full-time PhD program in plant pathology and conduct research in area(s) of the proposal. Currently enrolled students are not eligible. Fellowship applicants must meet or exceed all University of Minnesota Graduate School requirements. Fellowship stipends are $17,000 annually. Alumni and friends of the Department are invited to suggest or refer potential fellowship candidates. Please contact the Director of Graduate Studies in Plant Pathology, Professor Chester Mirocha - (612) 625-8772, or Professor Richard Zeyen - (612) 625-4754.

- Richard J. Zeyen
Richard J. Zeyen - Short Sabbatical Leave

The University of Minnesota officially granted Professor Richard Zeyen a Single Quarter Leave (sabbatical) for research purposes in 1993 (April 18 to July 30). The title of Dr. Zeyen's leave proposal was "Physiology and Molecular Biology of Durable Disease Resistance to Fungal Parasites in Plants (Gramineae)." The majority of this leave was spent at the Institute of Grassland and Environmental Research in Wales, the United Kingdom, in Dr. Timothy Carver's laboratory.

Concurrent with Dr. Zeyen's leave was his appointment as an Underwood Fellow of the Agriculture and Food Research Council of the United Kingdom. As part of his fellowship obligation, Dr. Zeyen visited Dr. James Brown at the Cambridge Laboratory of the John Innes Institute in Norwich England, and Dr. John Bailey at the Long Ashton Centre for Arable Crops, near Bristol England. Dr. Zeyen gave seminar presentations at three locations in England and Wales concerning recent work from his laboratory on the molecular and cellular responses of barley to mildew infection.

- Richard J. Zeyen

NSF Grant Replaces 24 Year-Old Transmission Electron Microscope

Many generations of researchers and graduate students remember the venerable Phillips 300 Transmission Electron Microscope in the Minnesota Agricultural Experiment Stations Electron Optics Facility. Records show that over 400 researchers from 15 Departments in 6 Colleges of the University of Minnesota used this instrument between 1969 and 1993. Approximately 30,000 hours of use were logged on this instrument. However, in recent years the instrument showed definite signs of fatigue and age, and its reliability was questionable. A grant proposal was written to the National Science Foundation's Office of Science and Technology Infrastructure Program requesting funding to replace the Phillips 300 TEM with a state-of-the-art analytically configured transmission electron microscope. The $250,000 grant was successful and on April 16, 1993 the old 300 was removed and a new Phillips CM 12 analytical transmission electron microscope with TV imaging equipment was installed. Alumni are welcome to drop by any time to see the new instrumentation.

- Richard J. Zeyen

Professor Emeritus, Eide a "Leo" Roars Into 1990's

On 20 August 1993 Professor Emeritus Carl J. Eide became 89 years old. Astrologically he is a Leo, and although he doesn't believe in astrology it is one possible explanation for his exceptional longevity. Other explanations include genetics and a great sense of humor.

We invite all alumni and friends to celebrate Carl's birthdays with us by writing a note or letter. For those who do not have home address for Carl please write them in care of Ms. Delores Huebner, Department of Plant Pathology, University of Minnesota, 495 Borlaug Hall, 1991 Upper Buford Circle, St. Paul, MN 55108. Letters will be hand delivered directly to his home.

- Richard J. Zeyen

Dr. John Lacey is stepping down after five years as Chairman of the I.C.M.T., the committee responsible for the initiation of the Mycotoxicology Newsletter - An International Forum for Mycotoxins. The objectives of the International Commission of Mycotoxicology have been defined as: 1) To encourage, advise on and run mycotoxin symposia within or in association with ISPP, IUMS, and other International Congresses and meetings; 2) To publish and seek sponsorship for the Mycotoxicology Newsletter; 3) To encourage collaborative research, e.g., the evaluation of assay kits, assistance with educational programs on mycotoxins, etc.; and 4) To seek liaison with other organizations interested in mycotoxins. Dr. H. L. Trenholm, Agric. Canada, Building 34, Food and Animal Research Centre, Ottawa, Ontario, K1A 0C6 Canada serves as Vice-Chairman of I.C.M.T. Address any suggestions for this committee from recipients of this MTNL to Dr. Trenholm.

Those Delectable Wild Mushrooms

Oh, see the mushrooms in the wood
They look so clean and fresh and good
Let's pick a basketful to eat
They'll make a most attractive treat.
I'll cook a couple gourmet dishes
With mushrooms they'll be just delicious.
So it was done
And it was fun.
But Wait! It's now a later hour
That gourmet dinner's turning sour
Do those moans come from Mama Dear?
Are those poor Papas groans we hear?
Alas! Alack! Tis but too true
With this sad life they both are through.
We'll have it carved upon their tombs:
"They Didn't Know Their Wild Mushrooms."

- C. M. Christensen
VISITING SCIENTISTS

Dr. James K. M. Brown of the Cambridge Laboratory of the AFRC Institute of Plant Science Research, John Innes Centre, Norwich, England visited the Department and the Cereal Rust Lab on August 17 and 18, 1992. Dr. Brown is known for his research on powdery mildew of barley including studies of pathogen population dynamics, induced resistance in barley, and gene expression in barley following infection. He presented a seminar entitled "The Response of Barley to Infection by Powdery Mildew".

Dr. Timothy Carver of the Institute for Grassland and Environmental Research visited the Department February 28 - March 15, 1993 and worked with Dr. Richard Zeyen on a joint research program aimed at understanding durable resistance to powdery mildew diseases in cereals. He is a world authority on powdery mildew disease of cereals. Drs. Carver and Zeyen have had their North Atlantic Treaty Organization grant renewed and will continue their long and productive collaboration.

Dr. Clara Conicella was a visiting scientist in the Department November, 1992 through April, 1993. She worked with Dr. Zeyen and Mr. Timothy Clark on the in situ localization of resistance response genes. Dr. Conicella is from the Research Center for Vegetable Breeding at Via University in Portici, Italy. Her research specialty is cytogenetics.
Dr. M’barek Fatmi spent time in the Department from December 30, 1992 through January 15, 1993. During his visit, he consulted with faculty and helped teach PlPa 5004, the phytobacteriology course. Dr. Fatmi is on the faculty of the Institute for Agriculture and Veterinary Medicine at Agadir, Morocco. His visit was sponsored by AID funds.

Dr. Gus A. de Zoeten, Chair, of the Department of Botany and Plant Pathology at Michigan State University visited the Department and the Cereal Rust Lab on May 25, 1993. His research focuses on RNA virus replication in infected plants from the earliest interaction of the virus with the plant to the process of systematic invasion. Dr. de Zoeten was the speaker on May 24, 1993 at a seminar series entitled “Food and the Environment: What Role for Biotechnology?” sponsored by the Joyce Foundation, the College of Agriculture, and the Institute of Agriculture, Forestry, and Home Economics.

Professor John G. Ganchoff arrived January 7, 1993 to work in Professor Mirocha’s laboratory until early May. His interests were in the cooperative learning program at the University of Minnesota and the analytical instrumentation used in the mycotoxin program. Professor Ganchoff teaches analytical chemistry at The Elmhurst College in Elmhurst, Illinois.

Dr. Piotr Golinski of the Department of Chemistry, Academy of Agriculture, Poznan, Poland came to the Department June 1, 1993 and will be here through May 30, 1994. He is working in Dr. Chester Mirocha’s laboratory on the Analysis of Saxitoxin in Rat Urine Project.

Dr. Lalitha Sunil Kumar is a researcher at the National Chemical Laboratory in Pune, India (near Bombay). She was a visiting scientist in Dr. Nevin Young’s lab from June, 1991 through June, 1993. While she was here, she worked on genome mapping in Vigna, with a special emphasis on mapping resistance genes for mungbean mosaic virus. She is continuing this work now that she has returned to Pune and is also using genome mapping techniques to study bacterial blight resistance in Indian varieties of rice.

Dr. Yoshinori Matsuda from Kinki University, Nara, Japan arrived in January, 1993 to spend a year in the Department and the Cereal Rust Lab. He is worked on the host response gene project with Drs. William Bushnell and Richard Zeyen. Dr. Matsuda comes from Professor Ouchi’s laboratory and has been successful in using microinjection to put DNA and RNA into cells of higher plants and fungi and will be developing these techniques further here.

Mr. Abdelnajid Nadif from Centre Technique des Cultures Sucrières, Kenitra, Morocco came to the Department in April, 1993 for a period of 8-9 months to engage in a program of collaborative research and training in current molecular biology techniques. He participated in Dr. Benham Lockhart’s research program on detection, characterization and molecular genetics of badnaviruses, with particular reference to sugarcane bacilliform virus (ScBV). This project includes collaboration with IAV Hassan II at Agadir, the Mauritius Sugar Industry Research Institute and the Bureau of Sugar Experiment Stations in Queensland, Australia.

Dr. David Malehorn, Monsanto Agricultural Company, visited the Department on November 30, 1992. He presented a seminar entitled “Characterization and Expression of an Antifungal Protein Gene from Zea mays”. The seminar was sponsored by the Department of Plant Pathology and the Plant Molecular Genetics Institute.

HONORS

Dr. Howard F. Schwartz, MS 1975 from our Department, was presented the 1993 Distinguished Educator Award by unanimous vote of the Board of Directors, Rocky Mountain Plant Food and Agricultural Chemicals Association, Inc. For several years, the Association has given this award to a member of the academic community who has provided valuable and tangible assistance to Colorado agriculture in general and to the industry they represent.

Coyt T. Wilson, PhD 1946 from our Department, Distinguished Service Award has been established by the American Peanut Research and Education Society, Inc. (APRES). At the 1990 APRES meeting, Dr. Wilson was recognized for his contributions and years of service to APRES and received a plaque. He then presented the 1990 Distinguished Service Award to the first recipient, Dr. Don Smith from Texas A & M University. Dr. Wilson is currently Director of the Virginia Agricultural Experiment Station and Executive Associate Dean, Research Division, School of Agriculture and Life Sciences at VA Tech, Blacksburg, Virginia.

Tsitsi Ndowora was selected as a 1993 Fellow to attend the Summer Institute for African Agricultural Research at the University of Wisconsin, Madison, June 14 to July 2, 1993. She had the opportunity to interact with some of Africa’s most respected Agricultural researchers and she presented her M.S. research proposal.

Delores Huebner
Dr. Benham Lockhart was recognized for his long-term contributions to the University of Minnesota/Morocco AID Project at a meeting held June 17, 1993, on St. Paul Campus, to commemorate 25 years of collaboration between the University of Minnesota and the Hassan II Institute in Morocco. Dr. Lockhart spent approximately 10 years in Morocco helping the Institute to establish a College of Agriculture and Department of Plant Pathology at Agadir.

**1993 DEPARTMENTAL AWARDS & RECOGNITION CEREMONY**

The seventh annual Department of Plant Pathology Awards Ceremony was held April 29, 1993 in Borlaug Hall. Dr. Philip Larsen presided over the ceremonies. He expressed the importance of setting aside time to celebrate and appreciate all of the excellent students, faculty and staff who work in the Department. It is also a time to recognize the accomplishments of those who have distinguished themselves, including friends and alumni of the Department. Dr. Larsen presented the following awards:

**M.F. Kernkamp Scholarship**
Robert K. Noyd

**Fred I. Frosheiser Scholarship**
Richard P. Woodward

**Civil Service Award of Excellence**
Sandra L. Gould

**Distinguished Mentor Award**
Dr. Neil A. Anderson
Dr. Linda L. Kinkel
(Awarded by the Graduate Students)

**Distinguished Alumnus**
Dr. Carlos M. Ochoa

During the ceremony Dr. Larsen also recognized individuals who have received various honors and recognitions during the past year. Those recognized included:

**Dr. David W. French**, Honorable Mention Recognition for 1992 Minnesotan of the Year, Minnesota Monthly Magazine.


**Ms. Tsitsi Ndowora**, 1993 Fellow, Summer Institute for African Agricultural Research.

**Dr. James Percich**, President Elect, North Central Division, APS.

**Mr. David M. Rizzo**, Mycological Society of America Graduate Fellowship Award, Mycological Society of America.

**Dr. Alan P. Roelfs**, Senior Author, Rust Diseases of Wheat, 1992, CIMMYT, received First Place rating in the Publications Category, Agricultural Communicators in Education.


**Professor Isaak Wahl**, 1992 Israel Prize in the Life Sciences.

**Dr. Roy D. Wilcoxson**, Named a Fellow of the American Phytopathological Society (Award will be made at November 1993 Annual APS meeting).

**Dr. Richard J. Zeyen**, Underwood Foundation Fellowship Award, Agriculture and Food Research Council, United Kingdom.

The following individuals received USDA Certificates of Merit and Cash Awards:

- Mark Berres
- W. R. Bushnell
- David Casper
- Mark Hughes
- Kurt Leonard
- David Long
- Rosalind Richards

1993 memberships to Sigma Xi, The Scientific Research Society, were recognized as follows:

**Full Membership:** Daqun Liu, Ph.D.

**Associate Membership:** Gib Ahlstrand, Nora Altier

The PEPP (Professionalism and Equity in Plant Pathology) Committee Certificates of Appreciation for 1992-93 were given to the following:

- Gerald Amundson
- Steve Anderson
- Mark Berres
- Sam Boutin
- Leon Hidalgo
- Linda Kinkel

The length of service to the University of Minnesota of each of these important staff members was recognized and honored this year.

- Dann Adair, 10 year
- Brian McCullough, 5 year
- Elizabeth Ozmon, 10 year
- James Rowe, 10 year

Following the ceremony a group picture was taken on the front steps of Borlaug Hall. Awardees were honored and congratulated at a reception with an array of good food and refreshments. - Delores Huebner
DEPARTURES

Dr. Jacob Manisterski, who spent his study leave here, left the Department in August 1992 to return to his home in Israel. He worked on the *Puccinia recondita* complex in the Cereal Rust Laboratory. A farewell tea was held August 28, 1992.

There was a farewell tea was held for two Honorary Fellows, Drs. Christian Fatokun and Desiree Menancio-Hautea on September 16, 1992. Their time here was sponsored by the Rockefeller Foundation and they worked in Dr. Nevin Young's lab on RFLP mapping in *Vigna*. Drs. Fatokun and Hautea returned to their homes, respectfully, in Nigeria and Philippines.

Mervat El-Wahab was the guest at a farewell tea October 23, 1992 and before she departed for her home in Egypt. She completed her PhD dissertation studies and research on the nutritional changes in barley during storage under the direction of Dr. Richard Meronuck.

Bruce Potter resigned from his position as Coordinator of the Minnesota Cooperative Plant Pest Survey Program to accept a position with Cargill serving as an Agronomist/Consultant in Chokio, Minnesota. A farewell tea was held December 3, 1992.

We bid Nora Altier farewell at a tea March 17, 1993 before she departed for Uruguay. Nora had completed all but the dissertation for her PhD and she will return briefly to defend her dissertation as soon as it's completed.

A triple farewell tea was held for Gail McGill and Drs. Lalitha Kumar and Rama Velicheti June 22, 1993. Dr. Kumar, who was a visiting scientist in Dr. Nevin Young's lab, returned to her research position in India. Gail McGill, a research specialist in Dr. Young's lab, accepted a job in the Horticulture Department. Dr. Velicheti, who worked in Dr Chester Mirocha's lab, accepted a position at Oregon State University, Corvallis.

Dr. Janell M. Stevens-Johnk completed her PhD and accepted a position as Assistant Professor and Extension Specialist at Texas A & M University at Dallas, Texas. A farewell party for Dr. Johnk, hosted by her advisor Dr. Roger Jones, was held July 29, 1993 on the third floor/ outside deck area of Borlaug Hall.

-Stores Stewart Leaves for the Headship in Pennsylvania

On May 1, 1993, Dr. Elwin L. Stewart assumed duties as Head of the Department of Plant Pathology, Pennsylvania State University. There he will have the usual administrative responsibilities of a head but he will also teach mycology and perhaps do some mycological research.

Dr. Stewart's teaching career began at Eastern Washington State College in 1968, continued at Oregon State University, and matured at the University of Minnesota. He came to Minnesota in 1975 as Assistant Professor to do research and to teach mycology. Stewart's most outstanding contribution at Minnesota was as a teacher. He loved to teach mycology and he taught it with zeal in the Department, at the Lake Itasca Biological Station, and at national meetings of the Mycological Society of America and the American Phytopathological Society. It is estimated that he taught mycology to about 1400 students in his mycology classes at Minnesota. In addition to formal classroom teaching, Stewart was advisor to 6 doctoral candidates and 4 MS students. He also organized a fine collection of slides for teaching mycology, built-up the teaching collection of fungi in the Department, and re-established the Mycological Herbarium in the Department of Plant Pathology as a teaching and research tool.
Stewart's research emphasized the fungi. He studied them by means of standard techniques and, in recent years, the molecular techniques of isozymes and RFLPS. Much of his study was on mycorrhizal fungi and Deuteromycotina and Ascomycotina associated with wood and wood products. About 5 years ago he started work on the taxonomic relationships of Cercospora species and of Pseudocercosporella species. His research is recorded in 22 papers published in refereed journals and in 26 non-refereed sources.

In 1988 Elwin took a study leave at the Institut Agronomique et Veterinaire, Hassan II in Morocco. There he studied the fungi of Northwest Africa, advised Mohammed Achouri (PhD 1989) on completion of a doctoral dissertation on the Endogonaceae of Morocco, and advised the plant pathology faculty of the Institut on teaching and research in plant pathology and especially mycology. In 1984 he was appointed Adjunct Professor of Plant Pathology at the Institut.

Dr. Stewart was also active in national affairs. In 1985 he was appointed by the Secretary of Agriculture to the USDA's Special Committee on Microbial Collections in Plant Sciences. He actively served the American Phytopathological Society and the Mycological Society of America as member of committees and as chair of paper sessions.

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Thor Aids Style Manual Production

Professor Kommedahl spent May 8-11, 1993 in San Diego, California, attending a meeting of the Council of Biology Editors. Thor is a member of a committee of the Council which is producing a manual on scientific style and format.

Anderson and Kinkel in Minnesota Science

Drs. Neil Anderson and Linda Kinkel are featured on the cover article of the 1992 fall issue of Minnesota Science, Volume 47, Number 2, Agricultural Experiment Station, University of Minnesota for their work with biocontrol of potato scab. A copy was posted on the Department Bulletin Board. Congratulations to Linda and Neil for their excellent work and for this recognition.

Carl Eide Gives Greetings to the Department July 19, 1993

Carl is at home and is able to move around with the aid of a walker in the house and yard but can no longer drive to the Department. He appreciates the interest shown him by members of the Department and offers his regards to everyone. We miss him in the Coffee Hour and on the 4th Floor of Stakman Hall.

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RETIREMENT

Professor Bill Kennedy

Bill retired on May 15, 1993, after a long and productive career in the Department of Plant Pathology. A retirement reception was held for him at the Cherrywood Room on the St. Paul Campus on March 25th, attended by part of his family (wife, Betty, son, Dale) as well as many colleagues and friends. Bill and Betty's three daughters, one who resides in Arizona and two in California, were unable to be here.

Bill received his B.S. Degree in Biology in 1951 at Southeastern State College, Oklahoma and M.S. Degree in 1955 in Plant Pathology at Oklahoma State University. He taught biology in high school, was employed by the Oklahoma State Department of Health and as a laboratory technician at the University of California, Riverside.

Bill came to the Department of Plant Pathology in 1958 and completed his Ph.D. in 1961 under Dr. Tom King working on the cause and epidemiology of angular leafspot of strawberries. He began his work on diseases of soybeans thereafter and worked in close cooperation with Dr. Jean Lambert and later, Dr. Jim Orf in the Department of Agronomy & Plant Breeding, to produce twenty-two varieties of disease resistant soybeans that became widely grown in Minnesota and
bacterial diseases and numerous publications resulted in our better understanding of *Pseudomonas glycinea*, the cause of bacterial leafblight of soybeans.

This research was complemented by a broad spectrum of work with students and cooperators on other bacterial and fungus diseases of soybeans as well as on bacterial diseases of other Minnesota crops.

In about the early 1980's, Bill initiated an area of research virtually new to plant pathology. He went on a quarter leave to the School of Medicine, University of Minnesota, to gain expertise in the area of Chronopathology. This research concentrated on the interactions of disease and circadian rhythms in a variety of economic plants. It also included cooperative research with Dr. Steven Lindow, University of California at Berkeley, on day/night variations in frost sensitivity in plants. Bill also cooperated with Dr. Will Koukkari, College of Biological Sciences, and their work perhaps "opened a new door" of intriguing rhythmic relationships of plants and their pathogens.

Sixteen students received M.S. and Ph.D. degrees in Plant Pathology under Bill's guidance.

Bill and Betty purchased a home in Sun City, Tucson, Arizona, where they now reside. Bill's avocations included several craft skills to which he extended the same measures of excellence he applied to science. Perhaps Bill will now have the time to expand these skills in fly-tying, wood work with exotic woods including making professional quality violin bows and furniture building.

We thank Bill for his long service to the Department and the University of Minnesota. We wish Bill, Betty, and family a long, happy, and active retirement.

- Ernest E. Banittari

**SOCIAL AFFAIRS**

**Iowa vs. Minnesota**

Six students, Jeffrey H. Jenco, Stephen Wegulo, Jinshan Ke, Doug McNew, Girma Melesse, and Scott Heuchelin from Iowa State University visited the Department on August 28 and 29. On Friday afternoon, tours of the field plots, Cereal Rust Laboratory and Borlaug Hall were followed by a poster session/happy hour/barbecue. The softball game Saturday morning was won by the team with the Iowa players, although most of the players on the team were from our Department. Thanks to all who participated in organizing this event!

- David M. Rizzo

**Corn Roast Cancelled this Year**

There will not be a corn roast this year. We will reschedule the event again for Fall, 1993. Some reasons for the cancellation involve financial cutbacks at Rosemount and having fewer personnel available to clean out buildings, haul picnic tables, harvest sweet corn, etc. for this event. There have also been scheduling conflicts for September. Finally, there is a problem with finding an adequate amount of sweet corn for early October, which seems to be the only time available. We will resume this tradition next year with perhaps a different format that may involve moving the corn roast to the Twin Cities to allow for more participation by department members.

- P. O. Larsen

**Stakman Softball Game**

The graduate students were very lucky to beat the faculty and staff team by a score of 5 to 4. Bystanders on the sidelines thought the faculty had no chance but they gave them their best. Everybody played well and they all did a good job. The faculty said wait until next year! We all enjoyed the food and refreshments.

- David L. Long

**NEW EMPLOYEES**

Dr. John Bowers arrived in the Department in January to work with Dr. Linda Kinkel on various aspects of the microbial ecology of biocontrol of potato scab. He received his PhD degree from the University of Florida, Gainesville, and held postdoctoral positions at the University of Wisconsin-Madison, and Ohio State University, Wooster, before coming to St. Paul.

Dr. Wenlian Deng is a post-doctoral fellow with Drs. Zeyen and Bushnell, working on the genetic engineering of disease resistance to rusts and mildews in oats. She received her BS degree from Amony University, her MS degree from the Chinese Academy of Agricultural Science, and her PhD degree in 1993 from the University of Kentucky.

Dr. Ruth Dill-Macky was hired as a Research Associate September 14, 1992. She is working on types of resistance in barley stem rust in Dr. Alan Roell's laboratory in the Cereal Rust Laboratory. She completed her PhD in Plant Pathology at the University of Queensland, Australia. She also holds a BSc Honours degree and BSc degree from the University of Queensland.

Cynthia "Cindy" Herrick is an Accounts Specialist and has been working either part or full time in various University departments since April 1987. Cindy has a degree in elementary education and humanities. Cindy started working in the Department in August, 1993.
NEW EMPLOYEES

Dr. John Bowers

Dr. Wenlian Deng

Dr. Ruth Dill-Macky

Cynthia Herrick

Kimon Karelis

Joleen Magsum

Jacelynn Morrison

Shannon Skistad
Kimon Karelis graduated from Aitkin Public High School. Kimon has been employed as a seasonal employee at Rosemount and in December 1992 joined the Department working in Ward Stienstra's laboratory and the Plant Disease Clinic. The projects he works on include snow mold fungicide trials, winter injury, covers, crown hydration and freezing, SCN Plots, harvest and collection of soil for analysis and soilprocessing for SCN in the Plant Disease Clinic.

Douglas Lange joined the Department in July 1993 as a Junior Scientist in Dr. Nevin Young's laboratory. Doug holds a BA degree in biology from the University of St. Thomas. In addition to field and greenhouse work, Doug was also given the task of isolating and analyzing DNA from plants.

Joleen Magsum began in the Department January, 1993 as a Junior Scientist on the soybean cyst nematode project with Dr. Nevin Young and with Dr. James Orf in the Department of Agronomy and Plant Genetics. Joleen earned her BS degree in agronomy and plant pathology at North Dakota State University, Fargo.

Jacolyn "Jackie" Morrison began work as an Office Assistant in the Cereal Rust Laboratory in April 1992. She also assists Gerry Ochocki in the greenhouse.

Shannon Skistad is a student Accounts Assistant and she started last March to assist in year-end closing of accounts and to cover the transition in the accounts specialist position now held by Cindy Herrick.

RECENT PROMOTIONS

Cynthia L. Ash from Extension Educator and Assistant Professor to Extension Educator and Associate Professor, July 1, 1993.

Dr. Roger K. Jones from Assistant Professor to Associate Professor with tenure, July 1, 1993.

Dr. Carol Windels was appointed as adjunct professor in the Department of Plant Pathology at North Dakota State University, Fargo. She is and will continue cooperating on projects in the Red River Valley on both sides of the river.

RECENT GRADUATE STUDENTS

Name, Academic Background, Starting Date, Advisor

Alvarado, Dionicio Rosales, Ing.Agr., Universidad Autonoma Chapingo; M.C., Colegio De PostGraduados F 1992

Beale, Julie W. HS, Lee County Senior, Chapel Hill, NC; B.A., University of North Carolina, Chapel Hill. S 1993 Windels

Duellman, Kasia M. HS, Moon Valley, Phoenix, AZ; B.S., Arizona State University, Tempe, AZ. SSI 1993 Kinkel/Meronuck


Jones, Cecilia. Instituto CranDon, Montivideo, Uruguay; Agronomist certificate, Universidad De La Republica, Montevideo, Uruguay. F 1992 Samac

Moberg, Mary E. S., HS, Lincoln Southeast; B.A. St. Olaf College, Northfield, MN; M.S., University of Minnesota, St. Paul, MN. F 1992 Anderson/Stienstra

Newton, Miriam R., HS, University of Chicago Laboratories, Chicago, IL; B.S., Grinnell College, Grinnell, IA. F 1993 Kinkel/Leonard

Ryan, Andrew D. Mount Temple Secondary School, Malahide, Dublin; B.S., University College, Dublin, Ireland. S 1992 Kinkel

ORAL EXAMINATIONS PASSED

1992

March 30 Irshad Ali MS
July 30 Javier Plasencia PhD prelim
December 30 Ligia Ayala MS

1993

January 14 Nora Altier MS
February 25 DeHong Jiang PhD final
May 12 Janell M. Stevens-Johnk PhD final
July 23 Mary Moberg PhD prelim
August 18 James Patrick Martinez MS
RECENT GRADUATE STUDENTS

Dionicio Rosales Alvarado

Julie W. Beale

Kasia M. Duellman

Laszlo Gyenis

Cecilia Jones

Mary E. S. Moberg

Miriam R. Newton

Andrew D. Ryan
Fifth Annual Graduate Student Symposium

The symposium entitled "Plant Disease Management in Sustainable Agriculture Systems" was held on September 17th with the financial support of The Grand Metropolitan Food Sector and the Department of Plant Pathology.

The keynote speaker was Dr. Clive A. Edwards from The Ohio State University (Columbus, OH). His talk was entitled "The Integration of Plant Disease Management into Sustainable Agriculture Systems". Dr. Carol E. Windels, University of Minnesota (Crookston, MN) talked about "Biological Control of Soilborne Pathogens by Organic Amendments: Opportunities and Challenges"; and Dr. Christopher C. Mundt, Oregon State University, (Corvallis, OR) talked about "Functional Diversity in Agricultural Systems: Putting Theory into Practice".

The symposium committee consisted of Cecilia Jones, Tsitsi Ndowora, Andrew Ryan, and Jean Williams. Additional students volunteered their time helping with the last minute details.

In the afternoon there was a panel discussion on the Feasibility of Alternative Disease Management Practices. The panel consisted of Mr. Ralph Lents, President of the Genetically Engineering Plants in Agriculture. Sustainable Farming Association (Lake City, MN). Ms. Cindy L. Arnevik, County Extension Educator (Blue Earth, MN), and the morning speakers Dr. Ward Stienstra acted as moderator. - Cecilia Jones

SEMINARS

Plant Pathology Seminar, 8201, Monday, 3 PM, 365 Borlaug, Fall Quarter 1992

September 28. Brent McCallum. Mating Type Genes in Ustilago maydis, the Causal Agent of Corn Sooty."


October 12. Dean Malvick. Copper Resistance in Phytopathogenic Bacteria.


December 7. Dr. Ramakrishna Velicheti, Visiting Scientist. Activity of Cercosporin with Reference to Cercospora Diseases on Soybeans.

Plant Pathology Seminar, 8201, Monday, 3 PM, 365 Borlaug, Winter Quarter, 1992


February 22. Dr. Nevin Young. Genetic Dissection of Disease Resistance with DNA Markers.


Special Seminars

August 18. Dr. James K. M. Brown, Cambridge Laboratory of the AFRC Institute of Plant Science Research, John Innes Centre, Norwich, England. The Response of Barley to Infection by Powdery Mildew.

September 8. Dr. David Appel, Plant Pathology and Microbiology, Texas A & M University. The Oak Wilt Disaster in Texas: A Fascinating Story of a Major Disaster being Brought Under Control.

October 22. Dr. Donald Wyse and the Minnesota Institute for Sustainable Agriculture (MISA) Board Members. An opportunity for the Plant Pathology faculty and representatives of MISA to meet and discuss the structure and function of MISA.

January 29. Douglas Olson, National Research Council Canada, Saskatoon, Saskatchewan, Canada. The Design and Use of Packed Micro Capillary HPLC Columns for Analysis of Plant Products.

February 8. Dr. Neil Olszewski, Department of Plant Biology. Molecular Genetics of the Badnaviruses.

February 15. Dr. Ruth Dill-Macky, USDA/ARS Cereal Rust Laboratory. Barley Stem Rust, its Importance and Control: An Australian Perspective.


December 2. Early Season Potassium Deficiency in Ridgetill Corn. Deborah Allan.


This discussion group provided an informal forum for the presentation of research ideas, results, and proposals and was coordinated by Linda Kinkel.

- Marguerite M. Clemens

Dean Martin Visits

Mike Martin, Associate Dean for Research, College of Agriculture and Assistant Director, Minnesota Agricultural Experiment Station, visited our Department October 7, 1992 to learn more about our research project. He gave a presentation at the Faculty Assembly meeting and responded to questions. After the meeting Phil Larsen took him on a tour of the department facilities. As he toured the labs, faculty had a chance to comment on their research projects. - Delores Huebner

PLANT DISEASE CLINIC 1992

A reduced staff in the clinic processed about 3,400 samples and phone requests for information in 1992. Our largest crop host was soybeans, followed by oaks. One third of the soybean soil samples to be tested for SCN (Soybean Cyst Nematode) were from growers and the others were from research plots. Oak wilt is still a problem for many as about 150 samples were tested for Oak wilt. The clinic staff included 2 part time students and a part-time secretary. They were busy in the summer, and even with the reduced sample numbers, 52% of the contacts were from the general public. Staff use of the clinic accounts for about 1/3 of the total contacts. I expect this trend to continue. Nematode analysis, SCN is a major work area for the clinic.

In August the clinic assisted with a special project testing 4,000 samples of potato leaves for Potato Virus Y-necrotic strain. This project was conducted with Dr. Banttari, Janell Stevens-Johnk and the Minnesota Department of Agriculture. Good news, PVY-N was not identified in any of the potato samples from Minnesota.

The winter staff activity, while reduced included processing samples for SCN, silage and hay samples for storage molds and floriculture crops for root rots and virus diseases. The use of the Elutritator, purchased with funds from the Soybean Growers, made soil processing much easier. It took some time to get it set up and operating correctly. Dr. Greg Tylka from Iowa assisted with the calibration and set up and Sandy Gould traveled to Iowa State to learn first hand the process in use at his lab. Our soils are different than those in the south and the standard set up was modified to more effectively prepare cleaner (less organic matter) collections of eggs.

The '93 spring season started slowly due to the excessively wet field conditions which prevented normal planting activity. After the concerns about flooding and standing water subsided the real disease problems began. Major root rots and now rust and leaf diseases are a major problem. Wheat scab was bad, White Mold is repeated again this year and even corn had high levels of Common Rust. The expectation is that frost will end the season early and many crops will not be mature. Harvest and storage problems are expected to be seen this fall. - Ward Stienstra + Sandra Gould
MEETINGS

MINNESOTA PRESENCE AT APS MEETINGS IN NASHVILLE

This, a joint meeting of APS and SON, was attended by 1745 participants and held November 6-10, 1993, in Nashville, Tennessee. Roy Wilcoxson was designated a Fellow, and Old Timer Tom Kucharek, PhD 1969, was given the Excellence in Extension Award. Carol Windels completed her 3-year term as Councilor-at-Large. Kurt Leonard was selected as editor-in-chief-elect for APS Press. Linda Kinkel presided in a session on epidemiology and biological control. Seventeen abstracts were prepared by faculty and students of the Department.

Old Timers, plus a few spouses, who signed the guest book at the Minnesota/Wisconsin Hospitality Party are listed below.

Guests who attended the Hospitality Party sponsored by the University of Minnesota and University of Wisconsin from Minnesota were: Ernest & Marlene Banttari, Julie Beale, Chad J. Behrendt, John Bowers, Bruna Bucciarelli, Junping Chen, Kasia Druellan, Pedro Freguia, Linda Kinkel, Thor Kommedahl, Brent McCallum, Akhilesh Mishra, Robert Noyd, Ward & Myrna Stienstra, Roy D. Wilcoxson, Jean Williams, and Richard J. Zeyen. Guests from the USDA-ARS Cereal Rust Laboratory, St. Paul, MN were: Kurt & Maren Leonard, David Long, and Alan P. Roelfs & LuAnne Martell. Guests from the USDA Forest Service, St. Paul, MN were: Joseph O’Brien. Guests from the Northwest Experiment Station, Crookston, MN were: Cheryl A. Engelkes, Rita & Joseph Kuznia, and Carol E. Windels. Guests from the North Central Experiment Station, Grand Rapids, MN were: Robert Nyvall. Old Timers from elsewhere were: Hamed K. Abbas, USDA/ARS Southern Weed Science Laboratory, Stoneville, MS; Berto Arias, Penn State University, University Park, PA; John Ayers, Penn State University, University Park, PA; James S. & Pamela Baumer, Land O’Lakes Research Farm, Webster City, IA; James Behn, Iowa State University, Ames, IA; Robert L. Bowden, Kansas State University, Manhattan, KS; John & Bobbie Cross, Asgrow Seed Company, Kalamazoo, MI; Patricia Donald, University of Missouri, Columbia, MO; Robert L. Doudrick, USDA Forest Service, Southern Forest Experiment Station, Gulfport, MS; Conrad Kent Evans, Oklahoma State University, Stillwater, OK; James and Betsy Froyd, American Cyanamid Company, Princeton, NJ; Robert Goth, USDA/ARS Beltsville, MD; Craig Grau, University of Wisconsin, Madison, WI; John and Laani Hill, Iowa State University, Ames, IA; George Hudler, Cornell University, Ithaca, NY; John W. Jewell, Vanderbilt University, Nashville, TN; David W. Johnson, USDA Forest Service, Lakewood, CO; Kenneth Johnson, Oregon State University, Corvallis, OR; Clint L. Kohls, American Cyanamid Company, Princeton, NJ; Thomas Kucharek, University of Florida, Gainesville, FL; Kenneth T. & Marie Leath, U. S. Regional Pasture Research Laboratory, University Park, PA; Roland F. Line, USDA/ARS Washington State University, Pullman, WA; Paul Manion, State University of New York, Syracuse, NY; Denis McGee, Iowa State University, Ames, IA; Hongqin Miao, Texas A & M Citrus Center, Weslaco, TX; Monte R. Miles, CIBA Seeds, Bloomingon, IL; Lawrence Miller, McBryde House, Blacksburg, VA; Mary E. S. & Rod Moberg, Cenex Land O’Lakes, St. Paul, MN; Patricia Nolan, County of San Diego, Agriculture Weights and Measures, San Diego, CA; Nancy K. Osterbauer, Oregon State University, Corvallis, OR; Louis T. Palmer, Harris Moran Seed Company, Ruskin, FL; Wayne L. Pederson, University of Illinois, Urbana, IL; Mary Powelson, Oregon State University, Corvallis, OR; J. M. Prescott, DeKalb Plant Genetics, DeKalb, IL; David Punter, University of Manitoba, Winnipeg, Manitoba, Canada; Marsha L. Rhoads, University of Arkansas, Fayetteville, AR; John & Joyce Schafer, St. Paul, MN; Malcolm C. Shurtleff, University of Illinois, Urbana, IL; Larry L. Singleton, Oklahoma State University, Stillwater, OK; Tad Smith, Coastal Plain Experiment Station, University of Georgia, Tifton, GA; Brian J. Steffenson, North Dakota State University, Fargo, ND; Janell M. Stevens-Johnk, Texas A & M Research and Extension Center, Dallas, TX; Erik L. Stromberg, Virginia Polytechnic Institute and State University, Blacksburg, VA; Roy Sturgeon, Oklahoma State University, Stillwater, OK; Laura Sweats, Pillsbury/Green Giant Co., LeSueur, MN; Frank H. Tainter, Clemson University, Clemson, SC; Judy A. Thies, USDA/ARS U.S. Vegetable Laboratory, Charleston, SC; Peggy Thorson, Iowa State University, Ames, IA; Linda M. Treeful, St. Paul, MN; N. V. Rama Raje & Devi Urs, Fargo, ND; Eugene VanArsdel, Professional Tree Service, Inc., Bryon, TX; and Joseph Vargas, Jr., Michigan State University, East Lansing, MI. Seventy eight individuals signed the guest book, 10 being non-Minnesotans.

- Thor Kommedahl + Marguerite M. Clemens

Fifteen APS/SON Abstracts Submitted by June 1

As of June 1, 15 abstracts from Plant Pathology were delivered to APS Headquarters. At least two more will be submitted by the deadline June 15. Five abstracts represent oral presentations, and 10 posters (one for SON). In addition, one abstract was submitted to the North Central Division for presentation at the meeting in Fargo, ND.

- Thor Kommedahl
Fourteen from Minnesota at International Congress for Plant Pathology

The International Congress of Plant Pathology, held at Montreal, attracted 1,682 participants. Bob Blanchette and Sagar Krupa were symposium speakers; Bill Bushnell and Jim Groth were leaders of discussion sessions; and the following displayed posters: Bushnell (with Eilam and Anikster), Etebarian (with Wilcoxson, Stewart, and Woodward), Groth (with McCain and Roelfs), Juzwik, Liu (with Anderson and Kinkel), Plascencia (with Bantatt and Jemmerson), Rizzo (with Blanchette and May), Skilling (with Ostry and Pijut), Szabo (with Zambino and Kubelik), and Windels (with Nielsen and Kuznia). Kommedahl participated in Executive Committee and Council meetings. The 7th Congress will be held in Scotland in 1998. Those who attended are to be commended for their support of international plant pathology! - Thor Kommedahl

Jim Percich Becomes President of the North Central Division for 1994

At the 1993 Annual Meeting of the North Central Division (NCD) of APS, held at Fargo, North Dakota, 22-24 June 1993, Dr. Percich succeeded from Vice-president to President, and Minnesota will host the 1994 meeting of the Division. About 130 were registered for this meeting, in which a symposium was held to commemorate Flor's contribution in developing the gene-for-gene concept. Dr. Flor was at NDSU for most of his career, and was a graduate of the University of Minnesota (PhD 1929). Stephen Ries, University of Illinois, was elected secretary-treasurer, and Doug Jardine, Kansas State University, was elected Councillor from the NCD to APS. Thor Kommedahl was given the Distinguished Service Award for the Division. (Thor expresses his appreciation to the Department for nominating him for this Award). - Thor Kommedahl

"Time Marches On" — But Are We In Step

Many members of the department attended a free workshop sponsored by the Professionalism and Equity in Plant Pathology (PEPP) Committee. This workshop was held May 19, 1993 and was entitled "Making Time Work For You" and was presented by Dr. Joyce Weinsheimer. Joyce Weinsheimer, Ed.D., is a program director at the University's Learning and Academic Skills Center.

This workshop gave participants a chance to look at time management from a new perspective. Rather than show how to squeeze more activities into less time by sticking to schedules and stepping up the pace, this program discussed how to make choices that allowed participants to use time well and to select tools that will support individual decisions. Participants discussed and consider why people were often uncomfortable with time usage despite all the quick fixes and techniques available to them. They also developed a personal system to unclutter both their professional and personal lives. A free lunch with pizza was also provided to participants after the workshop. - Todd Burnes 1992-1993 Chair of the Professionalism and Equity in Plant Pathology (PEPP) Committee

New Personnel Welcomed to the Department

September 14, newly arrived students, scientists and employees were welcomed into the Department during the annual orientation program in 491 Borlaug Hall. Graduate Student Handbooks and Employee Information notebooks were given to the new people. Phil Larsen, Department Head, gave an Introduction and Overview of the Department. We then broke to attend the traditional 10:00 o'clock coffee hour at which each of the new people introduced themselves and met others in the Department. The program continued with presentations as follows: Office Staff and General Information, Delores Huebner, Administrative Director; Greenhouse and St. Paul Research Facilities, Dann Adair, Coordinator; Graduate Studies Program and Procedures, Chet Mirocha, Director of Graduate Studies; General Information Regarding Education and Coursework in the Department, Dave MacDonald, Chair of the Education Committee. The chairpersons from each personnel group (Dean Malvick, Academic Professionals; Connie Post, Civil Service; David Rizzo, Graduate Students) joined us for a pizza luncheon. After lunch Phil Larsen and Dann Adair led a tour of the departmental facilities with assistance from Darroll Skilling at North Central Forestry and Kurt Leonard at the Cereal Rust Laboratory. - Delores Huebner

Plant Pathology Connects to the Internet

Electronic mail arrives for Nevin Young from India... The Cereal Rust Laboratory forwards a message to Israel, seconds after it is written... Jim Groth transfers a manuscript back and forth electronically, and the revision process takes days instead of weeks... What makes all this possible? Our connection to the Internet.

To enhance our departmental communication capabilities, Dr. Philip Larsen initiated a networking project to connect our departmental computers to the world-wide Internet. By January 1993, the network was installed, training was completed and faculty, graduate students and staff were sending messages to anyone who had an E-mail address on a computer connected to the Internet. Over the past year, those using the Internet have found many wonderful uses for it from doing literature searches in Current Contents to
searching for job openings on the APS Electronic Bulletin Board System.

Plans are underway for a Plant Pathology Gopher which will give faculty, staff and students access to browse various departmental resources or information.

- Delores Huebner

Pizza Luncheon for High School and Undergraduate Employees

July 23 a pizza luncheon was held in 491 Borlaug Hall for temporary high school and college undergraduate student employees and their supervisors. There was a short informal program during which Phil Larsen expressed appreciation and thanks to the students for their service in the Department. Deborah Samac gave a presentation on opportunities in Plant Pathology and talked about jobs that plant pathologist do. Nevin Young spoke about how plant pathologist and agriculture impact and influence people’s daily lives. We also learned more about the students as they told about where they are from and what they are doing. Some students were employed on faculty research projects and others came here through various research programs such as the Life Sciences Summer Research Mentor Program for high school and undergraduate college students sponsored by the College of Biological Science and supported by the College of Agriculture. Some students were here on the ARS, USDA Research Internship and Apprenticeship programs.

- Delores Huebner

USDA/ARS CEREAL RUST LABORATORY

Several visiting scientists participated in research projects at the Cereal Rust Lab in 1993. Yoshi Matsuda arrived in January from Kinki University in Nara, Japan for nine months of research with Bill Bushnell. Dr. Matsuda worked with Seijo Ouchi in Japan and is continuing research with Dr. Bushnell on two projects. The first involves microinjection of DNA into barley epidermal cells for studies of host-response genes. The second involves tissue culture and regeneration of oat plants from coleoptile tissue. Dr. Charles C. C. Hu form the Chinese Academy of Agricultural Sciences in Beijing is spending nine months with Alan Roelfs in research comparing rust resistance in Chinese and U. S. wheat varieties and virulence of wheat leaf rust and stem rust races in China and the U. S. Dr. Clarke Garry, a biologist at the University of Wisconsin, River Falls, spent much of the summer working with Les Szabo developing PCR techniques for comparing ribosomal gene sequences in phylogenetic studies of leaf rust species that attack wild barleys. Dr. Brahim Ezzahiri, Department de Phytopathologie, Institut Agronomique et Veterinaire, Hassan II, Rabat, Morocco spent several weeks with Alan Roelfs continuing studies on a unique form of wheat leaf rust from Morocco.

Three new postdocs joined the Cereal Rust Lab in late 1992 and early 1993. Dr. Ruth Dill-Mackey arrived in September, 1992 to work with Alan Roelfs and Don Rasmusson, Agronomy and Plant Genetics Department, on resistance to stem rust in barley. Ruth received her PhD with Bob Rees at the University of Queensland, Toowoomba, Australia. Dr. Amy Nelson, who previously worked in Cris Lamb’s lab at the Salk Institute in San Diego, came to work with Bill Bushnell on host response genes in barley. Dr. Wenlian Deng, who recently received her PhD at the University of Kentucky, also joined Bill Bushnell and Dick Zeyen to work on genetic engineering of disease resistance in oats. Paul Zambino and John McCain completed postdoctoral appointments with the Cereal Rust Lab in 1993.

Visitors to the Cereal Rust Lab included David Marshall, Texas A&M University; S. Rajaram and B. Scoymand, CIMMYT; Darrell Wesenberg, USDA,ARS Small Grain Germplasm Collection, Aberdeen, ID; Carl Grifley, Virginia Tech; Kate Everts, Busch Agricultural Resources, Ft. Collins, CO; Hitoshi Kunoh and Emi Inoue, Meio University, Japan; Guo Handi, Chinese Ministry of Agriculture; Joe Hennen, Purdue; Rashad A Abo Eleniein and Ibrahim El-Fangary, Agricultural Research Center, Giza, Egypt; C. Van Silfouit and Gert Kema, Agricultural University, Wageningen, Netherlands; Mogans Hovmoller, Lise Jorgensen, and Bent Nielsen, Danish Institute of Plant and Soil Science; and Lisa Munk, Royal Veterinary and Agricultural University, Copenhagen.

- Kurt J. Leonard

PLANT PATHOLOGY AT NORTHWEST EXPERIMENT STATION

Julie Beale moved to Crookston in mid June to begin research on a MS with Carol Windels. Her thesis topic is on the relationship of Aphanomyces cochlioides populations and disease severity on sugar beet in the field. She spent the summer developing an appreciation for beet production and the devastating effects of Aphanomyces in a wet season. Julie grew up in North Carolina and received her undergraduate degree from the University of North Carolina, Chapel Hill.

Dr. Cheryl Engelkes accepted a Research Associate position on the plant pathology project at Northwest Experiment Station and moved to Crookston in September. She will be determining the mechanisms of suppression of Aphanomyces root rot of sugar beet by an oat precrop. Cheryl spent the previous two years at the
Biocontrol of Plant Diseases Laboratory, Beltsville, MD. While at Beltsville, she researched the effect of sublethal fumigation with metham sodium (Vapam) on susceptibility of sclerotia of *Verticillium* to attack by biocontrol fungi. Cheryl also developed a protocol to electrophoretically analyze microsclerotal proteins of *V. dahliae* and identified markers that characterize sclerotia that are weaken by exposure to Vapam. Cheryl received her PhD from the University of Minnesota in 1991.

Bruce Paulsrud completed an Undergraduate Research Opportunity Program (UROP) (Carol Windels, advisor) while a student at the University of Minnesota, Crookston. His project was on "Quantification of oospores in sugar beet roots differing in susceptibility to *Aphanomyces cochlioides". Bruce transferred to the St. Paul Campus to complete his B.A. and works part-time in the laboratory of Linda Kinkel. This spring he was awarded the Philip C. Hamm Memorial Scholarship for Undergraduate Students in the Plant Sciences and Related Disciplines.

Jon Warner also recently completed a UROP with C. Windels, "Biological control of sugar beet seedling pathogens with a bacterial seed treatment". Jon is completing his BA in Crookston.

Dr. Mike Asher, Plant Pathologist at Broom's Barn Experimental Station, UK, presented a seminar on sugar beet diseases in the UK. He explained the control practices implemented in an effort to prevent spread of Rhizomania. This devastating disease was first identified in England in 1987. Rhizomania has not been found in Minnesota or North Dakota, yet!

Dr. Randy Rowe, Ohio State University, visited the Northwest Experiment Station after he attended the APS North Central Division meetings at Fargo. Randy also toured potato research facilities (lab and field) at East Grand Forks and Simplot potato storage warehouses, and visited a local potato producer.

Wisconsin Students Visit CRL

The University of Wisconsin summer field plant pathology class of 8 students taught by Al Ellingboe visited Minnesota on 23-24 July. The U of W group was welcomed to the Cereal Rust Laboratory by Kurt Leonard and spent most of the morning learning about the operation of the lab and some of the research being done there. Chet Mirocha followed with some chemistry and information about mycotoxins. The U of M summer field plant pathology students joined the U of W group for lunch in Borlaug Hall, the afternoon sessions at St. Paul and Rosemount and a picnic supper at Crystal Lake in Apple Valley. During the afternoon sessions the students were taught by Don Barnes (Agronomy and Plant Genetics Department), Don McVey and Kurt Leonard, Dick Meronuck, Dave Long and Neil Anderson. The U of W students "tented" and fed the mosquitoes at Plant Pathology farm at Rosemount on Friday night before leaving for Madison by way of Red Wing on Saturday. At Red Wing they had a session in a corn field where they hopefully learned to appreciate the pathogenicity of plant parasitic nematodes.

Two weeks later most of the members of the U of M class "got up before breakfast" in order to catch a van headed for Wisconsin. We left a little after 6 in order to meet the U of W group at City Point by 9:15. We had very interesting sessions learning about the culture, marketing, and diseases of cranberries during the rest of the long morning. In the afternoon we had a "pathologically excellent" session on diseases of ginseng. On the next day of the 3 day trip we visited the U of W potato farm near Rhinelander. The session at the potato farm was again truly excellent. We then traveled to Door County for sessions on tart cherry and apple diseases. Dessert (Red cherry tart) at the bayside home-cabin of Dr. and Mrs. Dewey Moore was followed by a campfire and prolonged conversation as we camped on the U of W Experiment Station grounds. The expected rain finally caught up with us on Saturday morning but it did not prevent us from learning about all of the marketing problems that are killing Wisconsin's tart cherry industry and from seeing first hand what cherry leafspot can do to unprotected susceptible trees in a year of epidemic. We then had a little time on a then delightfully-sunny Saturday to see a little more of Door County. Three of our more adventuresome U of M students entertained the other tourists by jumping off the rocky cliffs into Lake Michigan.

-Carol E. Windels
News For Future Aurora Sporealis

Please complete and send to:

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or

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Name: ___________________________ Date: ______________

Address: ___________________________________________________________________

____________________________________________________________________________

Degree: ____________________ (M.S./Ph.D.) Year: __________________

Newsletter items: (We'd like to hear from you!)

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