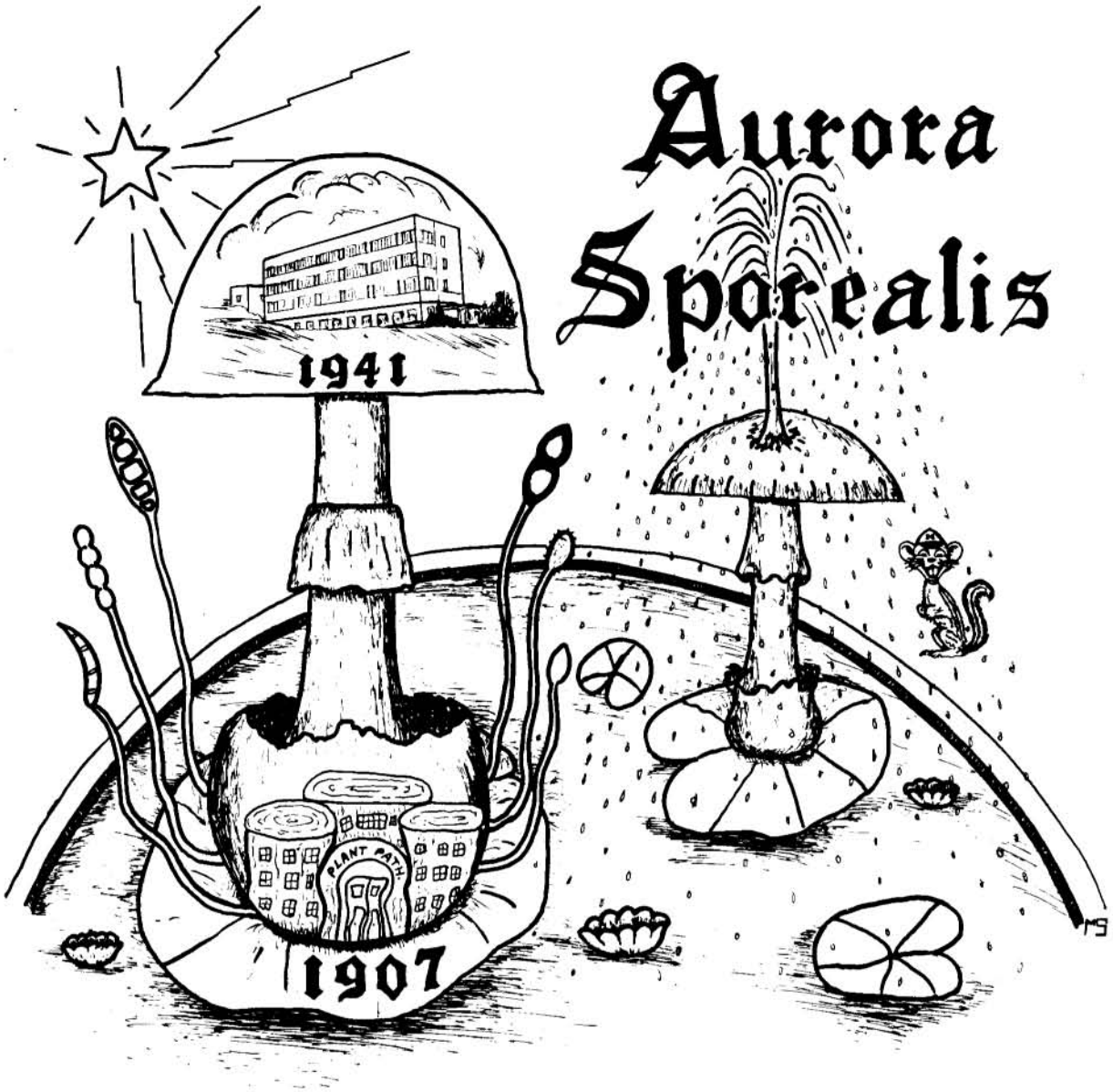
Aurora Sporealis



Wherein are recorded the recollections, the ruminations and the raspirations of those who have drunk from the foaming fount of the Department of Plant Pathology of the University of Minnesota and who now spout forth in divers ways

Let the fount foam and never run dry

Let the spout squirt and never lose power

OLD TIMERS

It is believed that Dr. H.A. (Rody) Rodenhiser (MS '25, Ph.D. '28) now retired from the USDA, is still consulting for the Rockefeller Foundation. It is known that he and Mrs. Rodenhiser have established a permanent residence in Corvallis, Oregon. Their Current address is 124 N.W. 7th Street, Corvallis, Oregon 97330.

Dr. Shirley Tucker, daughter of the late Ralph Cotter and Mrs. Cotter, was appointed Assistant Professor of Botany in Louisiana State University in September 1968. She earned the Ph.D. in the University of California Davis, working with Katherine Esau and E.M. Gifford, and worked on cytology of rust infected tissue.

Bob Klug (MS '54, Ph.D. '57) and spouse Andrie, wrote at Christmas as follows: "I have left the 3M Company and Geneva to join Hepitit (a subsidiary of the Dow Chemical Co.), Milan, Italy, as Director of New Business. I am concerned primarily to search, evaluate, and acquire products and business in the health industry," says Bob.

John W. Gibler (MS '50, Ph.D. '51) left the Rockefeller Foundation in Mexico City to join Massey-Ferguson in Brazil. His new address, starting June 1, is c/o Massey-Ferguson, Av. São João 473, 13 Ander, São Paulo, Brazil, South America. John went to work on the wheat program with Massey-Ferguson, the Brazilian Government and the state Secretary of Agriculture of Rio Grande do Sul.

Dr. Eugene B. Hayden (MS '54, Ph.D. '56) ex-rustologist, changed jobs in December 1968. He moved from Executive Vice President of the Crop Quality Council, Minneapolis, Minnesota, to Executive Director of the Cereal Institute, Chicago, Illinois.

John M. Halloin (MS '64--plant physiology) earned the Ph.D. degree at Michigan State University and in January 1969 reported that he was working on a post-doctoral fellowship with Drs. J.C. Walker and D.J. Hagedorn in the University of Wisconsin. Canoeing, camping, and communing with nature still beckon him from the "bench".

Stein Telneset (Ph.D. 63), ex-Eide potato boy, in December 1968, wrote from Cairo, Egypt that he is working for FAO on diseases of Irish potatoes. He and his family report living happily in Cairo.

Norman E. Borlaug (MS '41, Ph.D. '42) received at least five honors that we are aware of. The Agronomy News announced Norm as winner of the First International Service Award in Agronomy for his significant contributions in the improvement of wheat production in many countries of the world. In May 1968, Agronomy News also announced that Norm had received the Fifth Annual Genetics and Plant Breeding Award given by the National Council of Commercial Plant Breeders. Science, 3 May 1968, reported the election of Borlaug to membership in the National Academy of Science along with 49 other distinguished scientists. Since May 17, 1968, a street in Ciudad Obregon, Sonora, Mexico carries the name "Dr. Norman E. Borlaug." A plaque was unveiled which states: "To the apostle of wheat and benefactor of agriculture in the Yaqui region with grateful recognition." The May-June, 1968 issue of CIMMYT News reported that in November 1967 the American Agricultural Editors Association conferred its Annual Award for Distinguished Service to Agriculture to Norm.

James Miller was transferred in July 1968, from Mayaguez, Puerto Rico to Fargo, North Dakota, by USDA, not far from his hometown, Crookston, Minnesota. Jim is cooperating with plant breeders in developing rust resistant varieties of hard red spring wheats and durums.

Raul Garza Chapa (Ph.D. '56) was named Director of the School of Biology in the University of Nuevo Leon, Monterrey, Mexico on November 1, 1968. In September 1968, he was Vice President of the IV

Mexican Congress of Botany. Rhizoctoniologists become famous rapidly!

Joseph A. Rupert (BS '39) who was Director of the Rockefeller Foundation program in Chile joined the wheat program of CIMMYT. He moved to the University of California, Davis, where he is associated with the faculty and directs graduate theses and research projects on wheat. At the time of Joe's departure from Chile he was decorated by the Government of Chile and honored by the Agricultural Research Institute of Chile for his contributions to Chilean agriculture.

Dr. H.H. "Thorny" Thornberry (Ph.D. '34) in July 1968, was named the top floricultural scientist of the year by the Society of American Floriculturalists. He was recipient of the SAF Foundation Floriculture Award for his major contributions to knowledge of diseases, particularly in identifying and isolating the viruses that cause brown spotting of orchid blossoms.

W.E. "Sax" Sackston (Ph.D. '49) will soon return from a sabbatic leave and a National Research Council senior fellowship to go back to work at MacDonald College McGill University. Studies and travels took the Sackstons to England, France, Kenya, New Zealand and Australia. The only continent left for Sax is Antarctica--no disease there?

J. George Harrar (Ph.D. '35) (according to Bawden, one of the two Principals of Plant Pathology) is always in the news for his outstanding guidance of the Rockefeller Foundation; but certain accomplishments stand out above others. Last year he was awarded an Honorary Doctor of Science Degree from the University of Illinois and an Honorary Degree at the University of Nebraska Centennial Convocation, February 14, 1968. Under his leadership, the Rockefeller Foundation sponsored a major agricultural symposium. Among the participants were Harrar, Stakman, Borlaug, Rupert and the late Don Fletcher, alumni of Plant Pathology. Other Minnesota alumni who participated were Sterling Wortman, Ernie Sprague, Will Myers (Agronomy and Plant Genetics), Ralph Richardson (Horticultural Science), and Vernan Ruttan, current Head of Agricultural Economics, University of Minnesota.

In May 1969, Ricardo A. Rodriguez (Ph.D '60) reported that he will be moving to Houston, Texas, to be associated with the Kennecott Copper Corporation.

Roland F. Line (MS '59, Ph.D. '62) rust researcher with the Plant Science Laboratory Fort Detrick, Frederick, Maryland, moved last summer to join the staff of the Regional Cereal Research Disease Laboratory, ARS, USDA, Pullman, Washington.

David Baskin (Ph.D. '50) was appointed Associate Director of Biological Research for the Velsicol Corporation. He is in charge of screening pesticides and directs the Division Microbiology Section.

Clyde C. Allison (MS '30, Ph.D. '35) completed a tour of duty at the University of São Paulo, São Paulo, Brazil, and returned to the Ohio State University, in January 1969.

Old Timers who participated in NSF-sponsored short course for teachers of plant pathology at Cornell University, Aug. 4-23, 1969, included Jim DeVay, A.H. Ellingboe, and M.G. Boosalis.

Charles E. (Chuck) Logsdon (Ph.D. '54) ex-mayor of Palmer, resigned from the USDA to accept a position with the University of Alaska as Professor of Plant Pathology.

Arden F. Sherf (BS 1939) Professor of Plant Pathology, Cornell University, was in Cambridge, England, last year working with the National Agricultural Advisory Service. His travels took him to Frankfurt and Braunschweig, Germany, and to Wageningen, The Netherlands.

Paul R. Fridlund (MS '52, Ph.D. '54) Irrigated Agriculture Research and Extension Center, Prosser, Washington, had a visit to Rumania last summer where he was a guest of the Academy of the S.R. Rumania. He studied viruses of stone fruits as his participation in an exchange program between the Rumanian Academy and the National Academy of Sciences.

Leon J. Tyler (Ph.D. '34) became Emeritus Professor of Plant Pathology, Cornell University, July 1, 1969. Leon taught plant pathology for many years at Cornell. Congratulations, Leon, on a long and successful career.

O.T. Tom Wyllie, (MS '57, Ph.D. '60) University of Missouri, a sometime golfer, had a 6-month sabbatic leave and worked on problems related to root diseases with O.T. Jim DeVay, University of California, Davis.

C.S. "Stu" Holton (MS '29, Ph.D. '32) retired from a position he held for many years in the Regional Cereal Research Laboratory, USDA, ARS, Pullman, Washington. Stu is on appointment with the Ford Foundation in India.

Donald P. Taylor (Ph.D. '60) nematologist and co-author of a new book on nematode diseases, is in Lebanon for 6 months studying nematode populations and teaching a course in nematology in American University, Beirut.

Robert Goth (MS '57, Ph.D. '61) plant pathologist, Vegetables and Ornamentals Research Branch, transferred from Bean and Pea Investigations to Potato Investigations, USDA, ARS, Beltsville, Maryland.

Wayne T. Williams (MS '65) Assistant Professor, Biological Sciences, California State Polytechnic College, San Luis Obispo, received a Research and Creativity leave to continue his research on ultrastructural cytology of plant pathogenic fungi.

L.W. Melander (MS '24, Ph.D. 30) retired, but irrepressible as ever, is living in Baton Rouge, Louisiana. He informed us that he has not lost interest in roses. He is Consulting Rosarian, Gulf District, American Rose Society.

NECROLOGY

The following notice appeared in December 1968 issue of Phytopathology News: "Donald G. Fletcher, Agricultural Consultant to the Rockefeller Foundation and former president of the Crop Quality Council, died on October 14 in Minneapolis: Fletcher devoted a lifetime of service to U.S. agriculture and to the industries concerned with it, from 1923 when he began his career as executive secretary of the Conference for the Prevention of Grain Rust until his official retirement as president of the Crop Quality Council in December 1965.

"Since then, he had become increasingly active in encouraging international agricultural development through his assignment with the Rockefeller Foundation. Last April, Fletcher completed an 8-week round-the-world survey of agricultural research and food production efforts in India, Pakistan, and the Philippines.

"Fletcher recently received recognition for his contributions when he became the 13th recipient of the Elvin Charles Stakman Award in August. This recognized his efforts in aiding agricultural research in the U.S., Canada, and Mexico, and for his vision in establishing a pioneer winter grain increase program in Mexico in 1954. He was made a Fellow of the American Society of Agronomy earlier.

"Years of quiet effort by Fletcher gained him widespread recognition and respect. He received an honorary Doctor of Science Degree from North Dakota State University in 1959, and the University of Minnesota's Outstanding Achievement Award in 1966."

The Department of Plant Pathology, the Cooperative Rust Laboratory and the Institute of Agriculture, University of Minnesota, feel keenly the loss of Mr. Fletcher. He was an ardent supporter of our activities and contributed generously by his efforts to acquire funds for buildings, greenhouses, and other facilities through his legislative contacts.

1ST INTERNATIONAL CONGRESS OF PLANT PATHOLOGY, LONDON, ENGLAND.

Many Old Timers and some of the current staff of the Department attended, presented papers and participated in diverse ways in the 1st International Congress of Plant Pathology. Their scientific prowess and intellectual genius was felt throughout the Congress while socially old and new friends from all corners of the world met, became acquainted and reminisced. A highlight of the two weeks in London was a

Minnesota party in the lounge of one of the dormatories of Imperial College where approximately 75 Minnesotans and friends gathered for a most enjoyable evening. Old Timers included Chuck Logsdon, Palmer, Alaska; E.L. LeClerg, Hyattsville, Md.; Elisa Hirschhorn Mazote, Argentina; Bill Loegering, Columbia, Mo.; Arden Sherf, Ithaca, N.Y.; Jorgen Hermansen,, Copenhagen, Denmark; Al Wood, Penn State; Al Ellingboe, Michigan State; Abrar Khan, India; Sax and Lois Sackston, McGill University, Montreal, Canada; Larry and Nancy Miller, Holland, Va.; Jack Western, Leeds, England; Paul and Chai Huei Sun, Purdue University; Bobby Renfro, India; Vincenzo Grasso, Italy; Gene Saari, India; H.H. Flor, Fargo, No. Dak.; Dwight and Genevieve Powell, Urbana, Ill.; Eugene and Rose Van Arsdel, Texas A & M University; Ed Vaughn, Corvallis, Ore.; H. Stingl, W. Germany; C.S. and Mrs. Venkata Ram, India; Ed French, Peru; Geo. Papavizas, Beltsville, Md.; Tom Kavanagh, Dublin, Ireland; Lars Semb, Norway; Leif Sundheim, Norway; Subi Qasem, Jordan; and the late Donald Fletcher.

Friends who attended the party were B.E.J. Wheeler, England; R.K.S. Wood, England; Walter Carter, Hawaii; Sir Frederick Bawden, England; and Jim Tammen, Penn State University.

Members of staff and students from the department who were in attendance included Tom King, Bill Kennedy, E.C. Stakman, Chet Mirocha, Louis and Mrs. Palmer, Kerny and Mrs. Kernkamp, and the entire Kommedahl family.

Others who were registered for the Congress but did not get to the party were Asare Nyako, Ghana; H. Asuyama, Japan; D.L. Bailey, Canada; Lloyd and Mrs. Brinkerhof, Oklahoma; Mike and Mrs. Daly, Nebraska; Sidney Dickinson, England; Jim DeVay, California; Don Huisingh, North Carolina; Dutch Harrar, New York; Jergen Jorgensen, Denmark.

Orellana, Beltsville, Md.; Tom Nicholson, Ireland; Jack and Mrs. Mitchell, Wisconsin; Art Schipper, Minnesota; Harry Schroeder, Texas; John and Mrs. Rowell, Minnesota; Ed Ryan, Ireland; Don and Mrs. Stewart, Minnesota; Dave Thurston, New York; Jose Vallega, Italy; Larry Littlefield, North Dakota; and Dick Macer, England.

Our counts and records may not be entirely accurate, but to the best of our knowlege, 66 Old Timers, staff, and students registered for the Congress. At least 9 papers were presented by staff members from the University of Minnesota.

2ND INTERNATIONAL CONGRESS OF PLANT PATHOLOGY

The University of Minnesota will be the site of the 2nd International Congress of Plant Pathology in 1973. Wheels are in motion to prepare for the event. We have the blessings of Malcolm Moos, President, University of Minnesota, and housing is reserved in University dormitories. Tom King has agreed to be local arrangements Chairman, and Kerny will be Treasurer of the Congress. On the national scene, Arthur Kelman, Vice President of the International Society of Plant Pathology is busy making other plans for the Congress to be hosted by the USA and American Phytopathological Society. The national meeting of the latter will be held simultaneously with the Congress. We expect to see all of you here in 1973.

LOCAL NEWS

During the academic year, 1968-69, we had four National Defense Education Act Fellowships, two National Science Foundation Traineeships, and a Shevlin Fellowship in the department. NDEA Fellows were Dick Morrison, Darryl Anderson, Dick Zeyen and Tim Sullivan. NSF Trainees were Tom Kucharek and John Menge and the Shevlin Fellow was Ed Carley. The Shevlin Fellowship is a University of Minnesota fellowship sponsored by the Shevlin Foundation. There is only one per year and Ed Carley got it.

As reported in May 1968, Aurora Vol. 41, we occupied one floor in the new Plant Science Building in April 1968. We share the building with the Department of Agronomy and Plant Genetics, and Soil Science. The occupants are very happy with this new facility, especially with the air conditioning on our hot humid summer days.

ELECTRON MICROSCOPE

Something new was added. On March 13, 1969, a new Phillips 300 electron microscope went into operation under the immediate supervision of Ernie Banttari and a technician, Mary Pelvit. This laboratory is also a joint operation between the three departments plus Entomology Fisheries and Wildlife. A steering committee comprised of staff members from the four departments makes policies and Ernie, the Chairman, holds a tight rein on the day-to-day operations. Needless to say, we are very proud of this acquisition and we expect great things to come from this laboratory.

CROPS SERVICE BUILDING ADDITION

The 1967 Legislature appropriated $259,000 to provide an addition to the Crops Service Building, a unit used jointly by Agronomy and Plant Genetics, Soils Science, and Plant Pathology. The structure was completed this spring and we are still in the process of moving some of our operations into our space. We have a rough unsophisticated-type laboratory of 1200 square feet for processing seed, preparing inoculum, handling plant materials from field experiments and other things of this nature. A seed storage room with humidity and temperature control is available plus a large (148' x 60') warehouse-type storage area for the three departments.

GREENHOUSE--HEADHOUSE

The 1969 Legislature appropriated $371,000 for our department to build additional greenhouses and a headhouse. A committee composed of MacDonald, Banttari, Stewart, and Kerny has begun to make plans for the additional space.

We appreciate the generosity of the Legislature and the timing of these appropriations could not have been better. For years the University has been trying to "raze the Tottering Tower," but it is still occupied by most of the Cooperative Rust Laboratory. The building is in such bad shape that it is a question of who will get there first, the wrecking ball or Father Time. Plaster is falling from walls and ceilings; plumbing, electric wiring, and other parts of the building are failing like that of a field of wheat infected with rust.

Coincidentally with these developments, Congress appropriated funds several years ago for a new Cooperative Rust Laboratory facility on the St. Paul Campus. Bob Romig, ARS, and GSA are negotiating to get it built, and as soon as it is built we shall vacate the "Tottering Tower" and the wreckers will remove it from this world.

On April 28-29, 1969, a Regional Research Committee on Mycotoxins met in St. Paul. O.T.'s Axel Anderson, John Tuite and Tom Wyllie deliberated with the committee. Chet Mirocha chaired, Al Linck gave administrative advice, and witty C.M. Christensen educated the young men on the intricacies of moldy grain and livestock feed.

Thor Kommedahl, elected Vice President of the American Phytopathological Society at meetings in Columbus, Ohio, in 1968, will become President-elect (1969-70), President (1970-71), and Past President (1971-72).

Roy D. Wilcoxson, in 1968, was elected Vice President of the North Central Division of the American Phytopathological Society, and in 1969 elected President.

Bill W. Kennedy was elected Secretary--Treasurer of the North Central Division of the American Phytopathological Society for a three-year term beginning in June 1969.

In January, 1969, M. F. Kernkamp was a member of a six-man team in Morocco to explore the possibilities of a University of Minnesota Aid to International Development contract to provide technical assistance in research and instruction to the Moroccan Institute of Agronomy.

R.W. "Bob" Romig, plant pathologist ARS, USDA, and Associate Professor, resigned from his position in the Cooperative Rust Laboratory June 15, 1969. The next day he went to work with Northrup King and Company to develop hybrid wheat. He will remain in St. Paul so the Romig's won't have to move, and he will work with Ernie Rinke who minored in plant pathology in the early 1940's. We are sorry to see

Bob leave. He has done an outstanding job here.

Dr. N.T. Flentje was a visiting professor and lecturer in plant pathology from April 16 through May 31, 1969. He substituted for Roy Wilcoxson (see next item) and taught his special brand of Ecology of Plant Pathogens. Noel is Head of the Department of Plant Pathology, Waite Institute, University of Adalaide, Australia. He is not only a famous plant pathologist, but also a very fine person who made himself very much at home and soon became part of the moldy gang and even joined the 2nd floor joggers for the 2-mile stint per day. He is a very stimulating person and we are sorry he could not have stayed for a year or more.

Roy D. Wilcoxson is on sabbatic leave working with O.T. Bobby Renfro with the Rockefeller Foundation in India on the wheat and corn project. He and his family report having much fun, many new experiences, and Iva doesn't quite know yet what to do with all the domestic help.

PROMOTIONS JULY 1, 1968

Ernie Banttari--Assistant to Associate Professor.
Matt Moore--Instructor to Associate Professor.
Fred Frosheiser--Assistant to Associate Professor.
Don Stewart--Assistant to Associate Professor.

GRADUATE STUDENTS

We started the fall quarter 1968 with 41 graduate students in residence and two non-resident. Three of them are majoring in plant physiology and the remainder are majoring in plant pathology. This has been a rough year on graduate students since they are no longer deferred from military service. Three were drafted, one joined a reserve unit, five are awaiting orders to duty, and two who planned on coming in the fall 1969, informed us that they are being drafted. As a result of military service and others completing graduate work and going to various parts of the world to pursue their profession, we have 33 graduate students this spring. This is the smallest number since World War II.

On the brighter side, however, we can report success with students who completed their graduate work and are now safely ensconced in good positions in the USA or abroad.

Peter Onesirosan, M.S. June 1968, is home in Nigeria working with the University of Wisconsin-USAID project.

Alton Seid, M.S. July 1968, is teaching science and social science studies in L'Anse High School, L'Anse, Michigan.

Daphne Hoskins, M.S. March 1969, joined her agronomist husband in the Fiji Islands.

Darryl Anderson, M.S. June 1969, is in the Army and will return for his Ph.D.

Since June 1968 the following have earned Ph.D.'s:

Darrol D. Skilling, North Central Forest Experiment Station, St. Paul Campus.

Hemant A. Fanse, returned to India.

Louis L. Palmer, working for the Rockefeller Foundation in Mexico.

Gerald L. Crane is employed by Yoder Bros., Ft. Myers, Florida.

Dexter R. Douglas, potato disease research USDA, Aberdeen, Idaho.

Cesaria P. Eugenio accepted a post-doctorate followship in Entomology, Fisheries, and Wildlife, University of Minnesota.

Arthur L. Schipper (plant physiology) is doing research in the North Central Forest Experiment Station, St. Paul Campus.

Gilbert F. Stallknecht (plant physiology) is a plant physiologist, University of Idaho, Aberdeen, Idaho.

Mark A. Smith is employed by Buckman Labs, Memphis, Tennessee.

Joseph M. Vargas, Jr. is an Assistant Professor, Michigan State University.

Mahesh C. Pandey returned to India where he is working for the Rockefeller Foundation and O.T. Renfro is his boss.

Ernesto M. Moreno returned to Mexico where he works for the Mexican Ministry of Agriculture.

500TH ADVANCED DEGREE

An event of major significance occurred during 1968. This was the 500th advanced degree earned in the department. Up to July 24, 1968, there were 237 Master's degrees and 261 Ph.D.'s. On July 24, 1968, Louis Palmer passed the final oral and on August 15, Dexter Douglas passed his final. Both degrees were granted officially at the December commencement, but considering the final examinations in chronology of dates, Dr. Dexter R. Douglas has the honor of earning the 500th advanced degree in the Department of Plant Pathology. Dexter was a graduate of Kent State University, earned the M.S. at the University of Wyoming, and was a student of Eide's here in Minnesota. He presented a thesis entitled Factors Influencing the Survival and Infective Capabilities of Fusarium oxysporum f. sp. melonis in the soil.

The score as it stands today is 239 Master's degrees and 272 Doctor's of Philosophy for a total of 511 degrees. These degrees were conferred on 386 people who earned an M.S., a Ph.D., or both. The first three Master's degrees in 1910 were earned by R.A. Jehle, Jane Nesbit, and E.C. Stakman. The first Ph.D. was conferred on Stak in 1913.

Thor Kommedahl and family returned to St. Paul in September 1968, after two months in Iceland where Thor studied Fusarium and other soil-borne fungi in Icelandic soils. Thor's project was supported by a Fulbright Award. He also participated in a Fusarium workship at the University of Manchester, England, prior to the Congress.

In September, 1968, Lucas Calpouzos spent several weeks in Taiwan advising the Joint Commission on Rural Reconstruction on the use of oil-base sprays to control Sigatoka disease of banana.

Chet Mirocha participated in a symposium on natural toxicants in foods and feeds. The symposium was sponsored by the Agricultural and Food Chemistry Division of the American Chemical Society.

Roy Wilcoxson and Fred Frosheiser presented papers at the 21st Alfalfa Improvement Conference at the University of Nevada, July 9-11, 1968. Their papers were on Leptosphaerulina leaf spot and Phytophthora root rot of alfalfa, respectively.

Chet Mirocha surveyed the incidence of Fusarium roseum and F. moniliforme in corn to be used for human consumption in rural Mexico in December, 1968. His primary interest was to collect samples and test them for the presence of F2, F3, and F5 fungus estrogens that are known to disrupt reproductive processes in animals.

R.W. "Bob" Romig spent 5 weeks last winter in Morocco, United Arab Republic, Israel, Pakistan, and India arranging a cooperative project on trapping spores of Puccinia graminis. This is in relation to his studies on possibilities of predicting rust epidemics.

Howard Bissonnette, Extension Plant Pathologist, addressed the Oklahoma Agricultural Chemicals Conference at Stillwater on the use of fungicides to control foliage disease of cereals.

Norm Borlaug was the featured speaker at the Forester's Day Special Event in the School of Forestry, January 17, 1969. Norm is an alumnus of the School of Forestry where he earned the Bachelor's degree. He spoke on "Fiber and Food for the World's Billions."

C.M. Christensen studied grain storage problems in San Jaun, Puerto Rico the last two weeks of December, 1968. He claims to have worked Christmas Day and New Year's Day. Some of us are dubious.

Tom King was invited to join the Southeast Asia Advisory Development Group and took part in a conference in the State Department, January 31 - February 1, 1969. King reports that he is the only plant pathologist in the group.

In February, MFK and Mike Prescott visited the U.S. Army Biological Laboratories,

Ft. Detrick, Maryland. They did some business in connection with a research contract, and Kerny gave a seminar on rust research in Minnesota.

In April, Kommedahl chaired a section on Mechanisms of biological control of soil-borne plant pathogens, and also presented a paper, at the Second Eastern Conference on the Ecology of Root-Infection Microorganisms, held at the Virginia Polytechnic Institute, Virginia. He was also elected to the Steering Committee for the next biennium.

E.C. Stakman

Prior to the International Plant Pathology Congress in London, J.G. Harrar, D.G. Fletcher, and ECS were entertained in Norway by O.T. Martin Tveit, now Managing Director of Jonas Øglaend A/S at Sandnes. They explored fjords, fishing grounds, salmon smokehouses, and herring kegs. After participating in the London Congress, ECS visited experiment stations in Ireland guided by O.T.'s Tom Kavanagh and Ted Ryan. There he met MFK and Mrs. MFK for some guided tours and socializing, respectively. Next came the International Cereal Rusts Conference in Oeiras, Portugal, where ECS gave an invitation paper at the closing session. September 11 - October 5 he was occupied with educational and research activities at CIMMYT in Mexico. By leaving St. Paul January 15 for New York, where he remained until April 1, this lucky man escaped much of the very unsalubrious winter of 68-69. Even more fortunately weatherwise, he was invited to Florida as one of the speakers at the annual Pest Control Conference February 25-26, to spout on "Mutual plant disease control problems in the Americas." On April 10, interrupting a short stay in St. Paul, the Professor was "Speaker of the Year" for the Botany Club at Iowa State University, with the title "Healthy Plants and Hungry People." Between April 24 and May 24 there was a continuation of the earlier assignment in Mexico. An so to St. Paul to see the lilacs bloom. But at home for how long? Who knows?

THURSDAY AT EIGHT

As the discordant strains of the ancient cowbell reverberate through the hallowed sanctum of Phytobrickhaus erectus, seminarians (some from Phytobrickhaus tremuloides) drift into the legendary arena of intellectual combat made famous during Stakman's chieftaincy. A hush falls over the assembled multitude as Kernkamp settles into his chair in the northeast corner of the room, and, as Chairman Dick Zeyen ambles forward with one eye cast toward the clock on the wall and the other at last-minute stragglers searching for a vacant seat in the last row. Assured that slides on travelogues will not be shown, Eide relaxes with his steno note pad ready and slumps into a chair handy to the exit in the southeast corner of the room. The chairman glances nervously at Matt Moore who is frantically searching for a comfortable wooden chair at a suitable location instead of the new fangled metal and plastic-covered ones. Eventually the seminar is called to order just as the chairman suddenly resurrects the log for the signatures of those in attendance, and the preliminary rituals come to an end. Special talks, literature reviews and research reports titillate the 28 persons who usually attend seminar; sometimes as few as 18 come but at other times there are as many as 45. Student attendence averaged 21 (14-34) and staff attendence averaged 7 (2-11) for the 38 seminars of the past year. Obviously, the program is the attraction. The best attended seminar of the year (45 were there) had double billing: Dr. Kuc from Purdue who chatted informally on biochemical resistance in plants and Dr. Cunningham from another department at St. Paul who projected a series of slides showing electron microscopic views of mitochondria. Perhaps the most entertaining (and instructional) seminar was served with the wit and wisdom of Clyde Christensen who portrayed the fate and fortunes of rotten grain. Clyde, author of four books, is reputed to be writing a fifth on mycology, entitled, "Sex and the Single Spore." There was a potpourri of topics from Thursday to Thursday which ranged from papers on membranes, mycotoxins and mistletoes to the mysteries of grantsmanship. To hold down rustologists Calpouzos (wheat), Prescott (analysis of virulence), Moore (biographer of crown rust epidemics), Romig (epidemiological mathematics), and Rajendren (coffee rust) discourses were fostered concerning Rhizoctonia genetics

(Inductee Jim Groth and Australian Noel Flentje with some kibitzing from Neil Anderson), Phytophthora (Kroll), Helminthosporium (Vargas and Gibbs), mushroom culture (Lapis), fungal estrogens (Miss Eugenio), sterols vs. sexual reproduction (Morrison), alfalfa leafspots (Pandey) and the mission-oriented extension pathologist (Johnson). Travelogues and international agriculture encroached onto some programs, much to Eide's chagrin and ranged from Greece (Calpouzos), Ireland (Moloney) and Iceland (Kommedahl) to Taiwan (Annabelle Chang) and Australia (that bloke Al Gibbs). Visitors were exotic old timers and local (campus) talent. From West Pakistan came S.F. Hassan who lectured on wheat rust and from our forest experiment station came L.F. Ohmann and M.L. Heinselman to picture the ecology and fire history of the boundary waters canoe area of northern Minnesota--just to cite a few examples.

The seminar is adjourned for coffee...and the inevitable inquisition of the host.

TUESDAY AT FOUR

As the 4-o'clock hour approaches on Tuesday afternoon, a harried student either in white shirt-tie-and-suitcoat or in a bright new frock will be seen scurrying about on the fourth floor and it is a good bet that he or she is the speaker for that seminar. Out-of-town visitors have been known to come; in fact, old timer Tommy Graham chose a humid, hot (82°F) October afternoon to check up on the generation under 30 for its seminar performance. This year there was a different theme each quarter: fungi for fall, bacteria for winter, and viruses for spring. A taxonomic and pathological review of important genera of fungi was featured. These included Aphanomyces, Armillaria, Fusarium, Helminthosporium, Phythophthora, Pythium, Sclerospora, Sclerotinia, Septoria, and Rhizoctonia, and were presented by Anderson, Bevis, Warren, Warner, Slattery, Sullivan, Alabanza, Moreno, Swensrud, and Meronuck, respectively.

In winter, genera of bacteria were studied. Plant Pathogenic bacteria in general were described by Gibbs. Species concept and identification were treated by Anderson, and DNA and taxonomy by Liebermann. Erwinia and Pectobacterium by Kucharek, Corynebacterium by Cho, Agrobacterium and Rhizobium by Chang, Xanthomonas by Tainter, Pseudomonas by Carley, and Streptomyces by Wolf completed discussion of genera. Came spring and the viruses--Topics included systems of classification (Groth), virus identification (Wimschneider), mechanically transmitted viruses (Prescott), aphid and leafhopper transmitted viruses (Lapis), biological agents in soil as vectors (Mont), seed-borne viruses (Ohh), graft-transmitted viruses (Kroll), bacteriophages (Morrison), and mycoplasma (Zeyen).

Many questions were asked, some were answered. For example, this exchange: MFK: How do you know it is mutation? MP: I don't know. MFK: Oh yes you do. MP: If I do, it's not with me now. Or this: Are there any viruses on algae? No, nor are there any on liverworts, mosses, and ferns. One more. HB: How should viruses be identified based on your review? JG: We don't know enough. What does sonicate mean? usw...