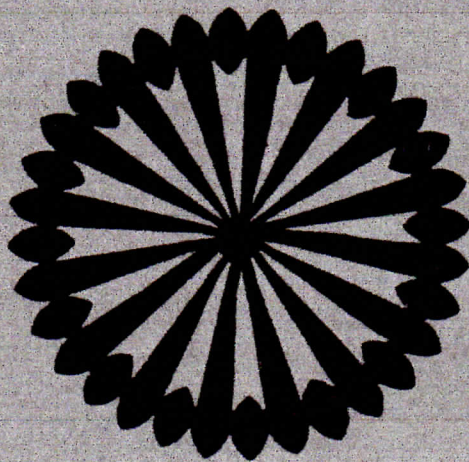


The Pennsylvania State University, College of Agriculture, Department of Plant Pathology

Plant Pathology Newsletter

December 1981



Greetings!!

It is a pleasure to once again provide you with our annual Department Newsletter. We welcome this opportunity to keep you up to date on Departmental activities and to provide you with news of your fellow Penn Staters.

This has been a year of significant change in the Department. On July 1, 1981, Dr. S. H. Smith became Dean of the College of Agriculture at The Pennsylvania State University. We are happy for Sam as he takes over this important position, but we are also sorry to see him leave the Department. During his five-year tenure as Department Head, great strides were made in the research and teaching programs. The Department's financial base is solid and in better condition than it has ever been before. Sam also was the spearhead in a drive to raise outside funds in support of research programs and in his last year as Department Head, more outside funds were obtained than at any other time in the history of the Department. I'm sure all of you join us at University Park in wishing Sam all the best in his new venture and challenge.

Two long-time faculty members have announced their intentions to retire during the 1981-1982 academic year. Dr. John S. Boyle, after 33 years of service, will retire on April 1, 1982. As most of you know, John's specialty is virology and his most recent work has involved a study of grey-wall of tomato. Professor L. P. Nichols, after 34 years of service, will also retire on April 1, 1982. Les has been our Extension Pathologist in Ornamentals and has handled the problems of this industry throughout the State in a capable and professional manner. He has also been a part of the Department teaching program. Both of these faculty members will be sorely missed. Replacements for these positions will be hired after a new department head is appointed.

We are in the midst of a search for a new department head. Several candidates will be interviewed in late November and early December. We hope to select a new department head early in 1982.

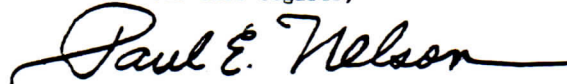
We were very fortunate to add two new adjunct faculty to the Department this year. Our new adjuncts are Dr. R. K. Horst, Department of Plant Pathology, Cornell University, and Dr. C. A. Powell, of the Pennsylvania Department of Agriculture. We welcome these new adjunct members and look forward to working with them.

At present we have 42 graduate students enrolled in our M.S. and Ph.D. programs. We are proud of our graduate students and their high level of accomplishment and performance in their endeavors. One of our graduate students, Ellen Lawrence, won the award for the best student paper presented at the Annual Meeting of the Northeastern Division of APS. Our hearty congratulations to Ellen.

We have several visitors in the department. Dr. Orangel Borges, Universidad Central de Venezuela, is here for a year's sabbatical leave working with Dr. R. R. Nelson. Dr. Borges is sponsored by the Venezuelan government. Professor Paul Bah, National School of Agriculture, Ivory Coast, is here for four months working with Dr. R. R. Nelson. Professor Bah is sponsored by the Council for International Exchange of Scholars. Dr. Uzi Brodney from Israel is a Project Associate working with Dr. R. R. Nelson. He is working on a Rockefeller grant and will be here for one year. Dr. H. I. Seif El-Nasr from El-Azhar University and the National Research Center, Cairo, Egypt, is working in the USDA Pasture Research Laboratory with Dr. K. T. Leath. He will be here one year and is sponsored by the America-Mideast Education and Training Services, Peace Fellowship Program for Egypt.

We have finished a busy year and look forward to a new one. We hope you will enjoy reading this Newsletter and that it will keep you informed on the Department's activities and the news of your fellow Penn Staters.

With our best regards,



Travis joins faculty

This year we welcomed Dr. JAMES W. TRAVIS as Assistant Professor of Plant Pathology Extension. Jim began his duties on February 1, 1981 with responsibilities for small fruits, tree fruits, and grapes. He has been developing a program to educate growers on ways to increase peach tree longevity and is placing a emphasis on small fruit production in the state. In addition to his very active extension program, Jim is conducting research on Cytospora canker of peach and fungicide distribution in fruit trees.

Bob Struble retires

BOB STRUBLE, who served the Department in various capacities from 1946 to his retirement as Supervisor, April 1, 1981, is looking forward to the 1982 growing season when he can utilize the small greenhouse which friends, alumni and department members helped construct for him in appreciation for his years of service to Penn State. Bob plans not only to produce his own plants but enough for sale. In addition, the Runville area is still a good place to fish, hunt and hike, and Bob now has time for these activities.

Retreat

TREAT AND RETREAT

The Department of Plant Pathology held its first retreat between Spring and Summer Terms. The location was the Sheraton Inn in Milesburg, Pennsylvania. The topic of the retreat was the conversion to the Semester System and how the Department could use the changeover to improve activities in teaching, research, and extension. Most participants agreed that the accomplishments of the retreat equalled or bettered their expectations.

Retreats are sometimes scoffed at by critics who see them as opportunities to party-it-up at someone else's expense. This retreat was far from a party, although there was some celebration at the very end as Sam Smith announced at the last hour that he had accepted an offer to become the new Dean of our College of Agriculture.

The Department's two-day retreat was a highly structured activity employing the Nominal Group Technique. This method of group activity works to extract lists of problems from all of the participants with great efficiency and with full participation by all. Once the lists of problems were made, priorities were established and then solutions were formed for the major problems.

One major outcome of the retreat was an extensive document listing anticipated problems, high priority areas of concern and suggested solutions that could be pursued in the future as we approach, with mixed emotions, the conversion to the semester system.

New course

A new variable-credit course entitled Plant Disease Diagnosis was offered for the first time during the Summer Term, 1981; 21 students enrolled. The course was organized by DONALD DAVIS, but involved the expertise of many faculty members. ALAN BIGGS served as the teaching assistant.

The objective of the new course is to enhance graduate students' abilities to accurately diagnose diseased plant specimens in the field or laboratory. This objective was met through a series of lectures, labs, and field trips. Each week, a lecture dealing with diseases of a specific crop was presented by one of the faculty; later in the same week, a field trip was taken to view signs and symptoms and to discuss diagnostic techniques of the same diseases in the field situation. Commercial production practices, crop values, controls, etc. were also discussed in the lecture and during the field trip. Symptomatic specimens, as well as unknowns, were brought back to the lab; free-hand sections, squash mounts, stains, isolations, and moist chambers, along with appropriate references, were used to help identify the causal agents. Dr. T. A. TOUSSOUN and JOHN PEPLINSKI helped conduct the laboratory sessions. During the term, diseases of cereal crops, turfgrasses, fruit trees, vegetables, corn, native plants, and ornamentals were emphasized. The highlight of the field aspect of the course was a two-day trip to view commercial vegetable production and vegetable diseases in Delaware and New Jersey, followed by a trip to the Vineland vegetable auction.

Another aspect of the course was the identification of diseased plant specimens brought in, or mailed in, to the Plant Disease Clinic. Each week, John Peplinski would discuss the weekly supply of specimens which had been sent to the Clinic. He would explain the steps which he used in identifying the various causal agents and give his diagnosis for each specimen.

Unknowns sent in to the Clinic or collected in the field by Donald Davis were also assigned to the students at this time.

Research

Dr. PETER ROMAINE conducts research on viruses and virus diseases of mushrooms and ornamental crops. His program includes a broad range of research objectives ranging from the development of improved virus detection methods to the isolation and characterization of viruses and virus-replicating enzymes. He is particularly interested in understanding how viruses take over the plant's metabolism for their own replication and, in doing so, how they cause disease.

In the mushroom area, major emphasis focuses on the biophysical and genetic characterization of the several plasmid-like viruses associated with LaFrance disease, a serious disease of commercial mushrooms grown throughout the world. This work has led to the successful development of an expeditious and sensitive detection method for mushroom viruses. This technique now offers to the growers the rapid and reliable diagnosis of LaFrance disease and should also prove valuable in establishing a mushroom virus certification program.

Virus research on ornamental crops has dealt with the evaluation of the enzyme linked immunosorbent assay [ELISA] as a virus indexing method for geraniums. This test has been used for many years in the medical field for the diagnosis of human disorders but only recently has been applied to plant virology. The ELISA was found to be more reliable than existing methods for the detection of tobacco ringspot virus, one of the most widespread and highly destructive viruses in geraniums produced commercially. Consequently, the ELISA is currently being tested in a commercial geranium virus certification program based in Pennsylvania. It is projected that the ELISA will vastly simplify, reduce the cost, and increase the effectiveness of virus indexing geraniums in the certification program.

Visitors

The Department welcomed many visitors from many parts of the U.S. and several foreign countries this year.

WALLY MARASAS, mycotoxicologist at the National Research Institute for Nutritional Diseases of the South African Medical Research Council, Tygerberg, South Africa, spent March to August in the Fusarium Research Center, working with P. E. NELSON and T. A. TOUSSOUN. Their work, preparing a "Manual for the Identification of Fusarium Species" and a companion volume

entitled "Taxonomy of Toxigenic Fusarium Strains" is supported by an FDA grant. Dr. Marasas also taught a course entitled "Mycotoxins--Their Veterinary and Medical Effects and Relationship to Plant Pathology," which was attended by Plant Pathology and Veterinary Science students and faculty.

Also visiting the Fusarium Research Center this fall was DEBBIE INGLES, a graduate student from the Department of Plant Pathology at Washington State University, Pullman. Debbie spent two months in the Department studying Fusarium taxonomy with Drs. Nelson and Toussoun. Her visit was sponsored by an American Association of University Women Jeannette Rankin Endowed Dissertation Fellowship.

J.A.W. COETZER of the Pathology Section, Veterinary Research Institute, Onderstepoort, South Africa, presented a seminar entitled "The Role of Mycotoxins and Plants in Photosensitizing Diseases of Animals." His visit to Penn State and the seminar were co-sponsored by the Departments of Plant Pathology and Veterinary Science. Dr. Coetzer was serving as Visiting Pathologist, Armed Forces Institute of Pathology, Washington, D.C., at the time of his visit to PSU.

Dr. ELIZABETH SWANSON, Assistant Professor of Botany at the University of Rhode Island, visited the Department to work with Dr. EVA PELL for two months this summer. The two were attempting freeze fracturing of potato protoplasts. Dr. Swanson also presented a seminar to the Department entitled "Ultrastructural Response of Green Plants to Ozone."

The cooperative program between Penn State and China is now in full swing, and the College of Agriculture welcomed several Chinese visitors this past year. Among those visiting were Professors Lawrence Li and H. C. Faan of the South China Agricultural College, Canton. Professor Faan presented a seminar to the Department of Plant Pathology entitled "Plant Pathology In China."

Many other interesting and informative guest seminars were held, including:

"Peanut Disease Research at North Carolina State University," presented by Dr. MARVIN BEUTE, Plant Pathologist--Professor, North Carolina State University;

"Mycoparasites: Interaction with Their Hosts and Their Use as Biological Control Agents," presented by Dr. HARVEY HOCH of the New York State Agricultural Experiment Station, Geneva;

"Plasmid System of *Erwinia stewartii*," presented by Dr. DAVID COPLIN of the Ohio Agricultural Research and Development Center, Wooster, Ohio;

"Environmental and Biological Monitoring for Pest Systems," by Dr. STUART H. GAGE of the Department of Entomology, Michigan State University;

"Early Events in Plant Infection," presented by Dr. GUS DEZOETEN, Professor of Plant Pathology at the University of Wisconsin;

"Ribosomal Proteins of Fusarium species and Other Fungi," presented by Dr. J. E. PARTRIDGE of the Department of Plant Pathology, University of Nebraska; and

"Tomato Culture and Diseases in the Orient" by Dr. CHARLES YANG of the Asian Vegetable Research and Development Center, Taiwan (currently on sabbatic at Beltsville, Maryland).

Dr. JOSEPH ROTEM of the Volcani Institute of Israel spent several days with R. D. Schein and D. R. MacKenzie in July. In September, Professor JURGEN KRANZ of the Tropical Institute of the University of Giessen, Germany, visited with Drs. Schein, R. R. Nelson, and MacKenzie.

Also visiting the Department as guests speakers in PPATH 535, Principles of Epidemiology, were K. R. BROMFIELD, of the Plant Disease Research Laboratory, Frederick, Maryland; CHARLES DELP of the Biochemicals Department, E. I. DuPont; and ROGER KAISER [Ph.D.-'80] of the Diamond Shamrock Corporation. DAVE MACKENZIE is the instructor for the course, which was taught this Fall Term.

Facilities

The plant pathology farm, located at Rock Springs along with the agronomy, horticulture, entomology, and USDA farms, has been developed a great deal since 1967. At that time, the farm consisted of an old chicken house, converted into a shop, and one tractor. We were doing about seven acres of research at that time and were fairly isolated from the activities on campus. Over the past 13 years, considerable changes have been made at the research farm. We now have a field lab that is shared by three departments. Our part of this building consists of two fully equipped labs, two walk-in growth chambers, a field office and lunch room, small grain seed storage, potato storage, walk-in freezers, and a large shop area. Attached to the field lab is a 100 x 35' greenhouse which is operational year around. We also have a fertilizer and soil storage building, Center for Cereals Research building, pesticide storage building, and a fully equipped potato quality lab. We have 20 acres of irrigated land completely surrounded by deer fence to protect the research crops from deer damage. On the adjoining University farm, we have an additional 30 acres of research land. The department also leases another 52 acres of land

at the Harpster farm, which is located three miles west of the plant pathology farm. Over 100 acres of field research are accomplished each year. The farm is also used for teaching purposes, and vegetable, small grains and potato field days are held each year, along with numerous other events. The farm also participates in Ag Progress Days annually. Where we were once isolated, we are now visited by over 70,000 people a year.

Faculty update

FACULTY TRAVELS

Our faculty continued a high level of national and international travel this year, with several faculty circling the globe.

JOHN AYERS spent five weeks in Swaziland as a member of a project design team fielded by Penn State. The purpose of the assignment was to design a cropping system research and extension training program for the small scale agriculture sector of Swaziland. The project was funded by US/AID.

PAUL NELSON traveled "down under" to visit Adjunct Professor LESTER BURGESS at the University of Sydney, Australia. Paul spent several weeks working with Lester on their cooperative research projects, and the trip included several collecting excursions throughout the country.

Paul was not the only plant pathologist to visit Australia, as Drs. D. J. ROYSE and L. C. SCHISLER, along with HARRY MUTERSBAUGH, also visited Australia to attend and participate in the XIth International Congress on the Science and Cultivation of Edible Fungi. The Congress was held this August in Sydney.

As reported in the last issue, DAVE MACKENZIE traveled to China with several other Penn Staters to help set up a cooperative PSU/China program. Dave returned in early January, 1981, with several research proposals ready to go, including one to send a graduate student to study in China for six months. This has been accomplished, with ROBERT THEBERGE, Ph.D. candidate under Dave's direction, now working at the South China Agricultural College on diseases of peanut. Dave expects to return to China to help Robert wrap up his project this January. Dave also traveled to Montpellier, France, last spring to present a paper at the Rockefeller Foundation's Rice Blast Conference.

PAT SANDERS spent several weeks in The Netherlands this summer, where she participated in the symposium on Fungicide Resistance in Crop Protection. The symposium was held at the Agricultural University, Wageningen.

Traveling to Sri Lanka this fall was S. H. SMITH, who made the trip as Dean of the College of Agriculture.

APS PARTICIPATION

Participation in APS activities also took many faculty to New Orleans, Louisiana, this summer for the National Meetings; Swan Lake, New York, for the Northeast Divisional Meetings; and the University of Maryland at College Park for the Potomac Division Meetings. Faculty and alumni holding national APS responsibilities are:

T. A. TOUSSOUN - Collections & Germ Plasm Committee; W. MERRILL - Illustrations of Plant Pathogens and Diseases; R. D. SCHEIN - International Cooperation; H. COLE, W. K. HOCK - New Fungicide and Nematicide Data [K. D. HICKEY, Chairman, Editorial Board]; C. L. CAMPBELL - Phytopathological Classics; K. T. LEATH - Public Relations; F. L. LUKEZIC - Standardization of Common Names for Plant Diseases; R. B. CARROLL - Teaching; F. L. LUKEZIC - Bacteriology; K. D. HICKEY - Chemical Control; R. K. HORST - Diseases of Ornamental Plants & Turf Grasses; D. R. MACKENZIE, L. MADDEN, R. C. SEEM, and T. E. STARKEY - Epidemiology; D. D. DAVIS, Chairman, Forest Pathology; J. E. AYERS, D. R. MACKENZIE, and R. R. NELSON - Genetics; P. E. NELSON and D. J. ROYSE - Mycology; S. P. PENNYPACKER, Plant Disease Detection; S. P. PENNYPACKER [Chairman], and S. H. SMITH - Plant Disease Losses; R. F. STOUFFER - Plant Nematology; C. P. ROMAINE - Plant Virology; E. J. PELL, L. W. KRESS and L. D. MOORE - Pollution Effects on Plants; R. A. SPOTTS - Postharvest Pathology and Mycotoxicology; K. T. LEATH - Soil Microbiology and Root Disease; S. H. SMITH - Committee on the Status of Women in APS; S. H. SMITH - Chairman, Diamond Jubilee Program Organizing Committee; J. R. BLOOM, Society of Nematology Representative to the Diamond Jubilee Program Organizing Committee; and K. D. HICKEY - Registration Committee.

Graduate students

Graduate students had the opportunity of learning "first-hand" about jobs in industry and related practical work experience this past June. Representatives from five agricultural chemical companies were present to describe their duties in industry and how to best prepare for such a career in plant pathology. Among the five representatives were four Department alumni. Those participating included: JANICE SCALZA [M.S.-'79]--E. I. DuPont; JEFFREY HUETHER [Ph.D.-'73]--Pennwalt; DANIEL LOUGHNER [M.S.-'80]--Rohm & Haas; RICHARD PORTER [M.S.-'78]--Rhône-Poulenc, and Luke Rice--Stauffer Chemical. The evening session was held at the Nittany Lion Inn and was followed by a social hour.

The graduate students are presently in the

process of designing a "Field Techniques Workshop." This several-day workshop will be held on a regular basis and will give some "hands-on" experience to those students who desire it. Topics may include: Field plot design, sprayer calibration and safety, disease assessment, and sampling techniques.

Something new was experimented with this past year. A series of "Fireside Chats" were conducted this past winter and spring at the Nittany Lion Inn. These informal chats gave grad students the opportunity to discuss topics of interest with a featured member of the faculty or staff, who was the guest for that particular session. Guests included: PATRICIA SANDERS, Dr. EVA PELL, Dr. DONALD DAVIS, Dr. WILLIAM MCCARTHY, and LARRY JORDAN.

A field trip for department graduate students is now in the works for next spring. This field trip would be to one of the agricultural chemical companies to observe industrial research facilities, methods, and screening procedures.

Several Department socials were organized by the graduate students during the past year. The first of these was a Wine & Cheese Social held at the Graduate Center in Kern Building on April 24. A good turnout of faculty, staff, graduate students, and alumni made for a pleasant time.

As usual, a Department Picnic was held during the summer. This year's picnic took place on July 18 at Stormstown Park. Approximately 120 members of the faculty, staff and students and guests attended the chicken barbeque. Picnic-goers were kept busy with softball, frisbee, horseshoes, volleyball, a balloon toss, and plenty of good eating.

With the help of Farm & Greenhouse Coordinator LARRY JORDAN and Farm Supervisor JERRY STOVER, the graduate students organized an "October Party." Held on October 30 at the Rock Springs Research Farm, the event featured a pig roast, with apple-bobbing, hayrides, and square dancing on tap for entertainment. In addition, door prizes were awarded with Dr. PAUL NELSON walking off with the evening's biggest prize--the pig's tail.

For the second year in a row, a Penn State graduate student received the Outstanding Student Speaker Award at the recent meetings of the Northeastern Division of APS. ELLEN LAWRENCE was awarded this honor for her paper on "Genetics of Sex in *Fusarium lateritium*." Ellen received a cash award as part of the prize for the outstanding paper.

As of this fall, the Department has welcomed three new graduate students. They are: CAROL ARNY, who received her B.S. from Colorado State University in Forest Biology. She is working toward her M.S. under the direction of Dr. Pell

and is interested in acid rainfall. NANCY GREEN is an M.S. candidate under the guidance of Dr. William Merrill. Nancy received her B.S. in Horticulture from Penn State, and is serving as a research assistant as well as being a graduate student. She is currently working on needlecast diseases of Christmas trees. GREGORY HUNT obtained his B.S. in Biology at John Carroll University in Cleveland, Ohio. Greg is currently seeking his M.S. degree under the direction of Dr. Pell and Dr. Bloom. The interaction of air pollution and nematode effects on plants is among Greg's interests.

Many graduate students have participated in professional society meetings this past year. The annual meetings of the Northeastern Division of APS were held on November 4-6 at the Stevensville Country Club at Swan Lake, New York. Ten graduate students attended these meetings and presented papers on their research at Penn State. These included: A.R. BIGGS, D. D. Davis & W. Merrill on "The Pathological Anatomy of Cytospora Canker of Hybrid Poplar;" S. C. BROSCIOUS & J. A. Frank on "Wheat Tiller Height in Relation to Severity of Infection by Erysiphe graminis and Septoria spp.;" S. C. BROSCIOUS, H. Cole, Jr., & J. A. Frank on "Control of Powdery Mildew on Wheat and Its Subsequent Effect on Septoria Severity and Yield;" N. L. FISHER & T. A. Toussoun on "Infection and Colonization of Chrysanthemum Inoculated with Fusarium oxysporum f. sp. chrysanthemi;" L. V. GREGORY, J. E. Ayers & R. R. Nelson on "Effect of Host Genotype on Estimating Relative Parasitic Fitness of Plant Pathogenic Fungi;" L. V. GREGORY, J. E. Ayers & R. R. Nelson on "Dosage Effects of Resistance Genes in Field Corn [Zea mays L.] to Helminthosporium turcicum;" T. D. KAUFMAN on "The Effect of Saprophytic Nematode Infestations on Agaricus bisporus Mycelium in Mushroom Compost;" E. D. KING & D. R. MacKenzie on "Yield Reduction of Potatoes Resulting from the Interaction of Quackgrass, Colorado Potato Beetles, and Foliar Diseases."

N. LALANCETTE & K. D. Hickey presented a paper on "The Integration of Primary Inoculum and Fungicide Rate for Management of Apple Powdery Mildew;" E. B. LAWRENCE on "Genetics of Sex in Fusarium lateritium;" R. J. LOTSTEIN, D. D. Davis & E. J. Pell on "Quality of Tomatoes Harvested from Plants Receiving Chronic Exposure to Sulphur Dioxide;" G. R. WATSON, J. A. Frank & M. A. Risius on "Effect of a Single Application of Triadimefon on the increase of Erysiphe graminis f. sp. tritici and the Resulting Yield of Wheat"; and G. R. WATSON, H. Cole, Jr. & J. A. Frank on "Response of Winter Barley Cultivars to Seed Treatment-Foliar Spray Combinations."

The Potomac Division meetings were held at the University of Maryland in College Park, Maryland, on April 15-17. Papers presented by graduate students at these meetings included the following: B. A. KIDNEY & R. D. Berger on "Quantifying Expression of Resistance to Uromyces

phaseoli in Phaseolus vulgaris"; and N. LALANCETTE & K. D. Hickey on "Fungicide Testing in Relation to Disease Progress of Apple Powdery Mildew."

The national meetings of the American Phytopathological Society this year were held at the Hyatt Regency in New Orleans on August 2-6. The meetings were well attended, with graduate students presenting the following papers: A. R. BIGGS & D. D. Davis on "Effect of Sulfur Dioxide on Growth, Sulfur Content, and Water Relations of Hybrid Poplar;" A. R. BIGGS & D. D. Davis on "Bark Water Relations and the enlargement of Hybrid Poplar Cytospora Cankers;" S. M. DOUGLAS, R. T. Sherwood & F. L. Lukezic on "Effect of Susceptibility and Adult Plant Resistance on Primary Penetration of Oats by Erysiphe graminis f. sp. avenae;" V. J. ELLIOTT, D. R. MacKenzie & R. R. Nelson on "Epidemiology of Multiline Cultivars: Selection of Cultivars for Conversion to Multilines;" N. L. FISHER & T. A. Toussoun on "Symptomatology and Colonization of Chrysanthemum Infected with Fusarium oxysporum f. sp. chrysanthemi;" M. H. ROYER, V. J. Elliott, D. I. Rouse, P. M. Fried, R. R. Nelson & D. R. MacKenzie on "Virulence Patterns of Erysiphe graminis f. sp. tritici from 1976-1980 in Pennsylvania;" M. H. ROYER, R. R. Hill, R. R. Nelson & D. R. MacKenzie on "A Statistical Examination of Race Survey Analyses;" J. C. STUTZ & K. T. Leath on "Pathogenicity of Fusarium roseum 'Acuminatum' and 'Avenaceum' in Roots of Alfalfa, Red Clover, and Crown Vetch;" and M. P. WACH & C. P. Romaine on "Double-Stranded RNA Associated with La France Disease of the Cultivated Mushroom."

This past year several candidates have completed their degrees and have left the Department. Among those receiving Ph.D. degrees were: JAIRO CASTANO, who is presently working with CIAT in Colombia on the rice program; VERN ELLIOTT, who is now an assistant professor at the University of California-Berkeley; ALI HAMID, who is currently working in his homeland of Malaysia; BARRY NOLT, who along with his wife Dr. Judith Kipe-Nolt, is performing research with ICRISAT in India; and JEAN STUTZ, who is now an assistant professor at Arizona State University. Jean was also married in August to Wayne Hood.

Among those students receiving their M.S. degrees were: NEAL DEVOS, who is now employed in California as an artichoke breeder; NANCY FISHER, who has decided to remain at Penn State for her Ph.D.; and SUSAN NEWHART, who is currently a technician at VESPA Labs in Spring Mills.

Also leaving the Department were: BARBARA KIDNEY, who has decided to follow a career in Counseling; LARRY LATHROP, who is working for the Pennsylvania Department of Agriculture in Harrisburg, Pa.; DAVID WARE, who is now employed by APHIS and located at University Park, Pa.; and LARRY ZANG, who is presently on a European tour.

Graduate Student Officer Elections were held again this past fall. The present officers are: RICHARD N. RAID--Graduate Student Representative to the Faculty; LAURIE MORELLI & CAROLINE KEHNE--Graduate Council Members; and PRISCILLA PARISH and JEAN-ROBERT PELLETIER--Graduate Student Associate Representatives.

News of alumni

While "no news may be good news," "no news is also no news." We appreciate the response from those of you who found time in a busy schedule to "keep in touch" and drop us a few lines for inclusion herein. We know how quickly time passes, the daily demands for our time which cannot be postponed, and finally the realization that as we get older, "it takes fewer activities to fill up our day." Remember, however, you are part of our Department's tradition, you are what Penn State is all about.

Our responses came from far and near, and also cover a good span of years since graduation.

ED REX [M.S.-'25], who retired from the New Jersey Department of Agriculture several years ago, writes, "I am continuing rustication on my four-acre estate in Lynn Township, Lehigh County, Pennsylvania, disporting myself with the horticultural development as my desires dictate." [Sounds like good advice to me for all retirees or those about to retire].

SAM BRAVERMAN [Ph.D.-'57] has been advanced to Associate Area Director, North Atlantic Area, U.S.D.A. and continues to call Ithaca and Geneva, New York home base. Fortunately, we see Sam on those occasions when Penn State requires an administrative visit on some USDA programs.

GARY EMBERGER [M.S.-'78] and wife Sylvia are now at home in Mechanicsburg, Pa. After recently receiving his Ph.D. degree in Plant Pathology from N.C. State, Raleigh, Gary is enjoying his teaching at Messiah College, Grantham, Pa. Son, Michael, born February 6, has also added a new dimension to his proud parents' lives.

RANDY GREIDER [M.Agr.-'76] and wife Debbie have recently moved to Kutztown, Pa. where Randy is employed by the Pennsylvania Farmers Association as an Accountant Supervisor [Farm Management Specialist]. Randy joins a staff of 40 accountants providing a management service to 4,000 Pennsylvania farms. Two energetic children, Jocelyn [4 years] and Adam [19 months], help to "fill up each day."

SANDRA MORALL YAYANOS is teaching Biology and has an independent study project in computer programming at Torrey Pines High School in Delmar, California. "Spare" time is occupied in the cultivation of sub-tropical vegetation, fig, orchids, bananas, hibiscus, epiphyllums, and even a log of Shiitake mushrooms [take note, Dan Royse]. Keeping track of a biologist husband and

a five-year old daughter also help to occupy time.

C. LEE CAMPBELL [Ph.D.-'79] and wife Karen are enjoying their collection of miniature roses as well as the more hospitable North Carolina climate. Lee is teaching at N.C. State and his research is in the area of "Epidemiology of Forage Crop Diseases." The Fisher-Smith Controversy was translated, interpreted, and published as Phytopathological Classic Number #13 by Lee last year.

DOUG ROUSE [Ph.D.-'79] and Judi Bradshaw Rouse are occupied full time in programs of the Department of Plant Pathology, Wisconsin. Doug is advising four graduate students, teaching, and doing research. He was recently awarded a USDA competitive grant to do research on Pseudomonas syringae on beans. The renovation of an older house recently acquired and flying with the University Flying Club "rounds out" his activities. Judi, in addition to her supportive role of Mrs., has found time to publish an interesting study on bacterial agglutination in corn in cooperation with Luis Sequeira and Art Kelman in the August issue of Applied and Environmental Microbiology.

ROBERT CARROLL [Ph.D.-'71] has completed a second year as Assistant Chairman, Plant Science Department, University of Delaware. These duties, however, apparently did not detract from his teaching for he was recognized at University Honors Day with an "Excellence in Teaching Award," given for his Introductory Plant Pathology Course. Steve Leath [son of Ken Leath, Adjunct Professor, PSU] an advisee of Bob's, was recognized for his research at the 1981 Potomac Division APS meetings. A visit by a group of students from Penn State guided by Dr. DON DAVIS and a "team tour" of the Agricultural Research Centers in Puerto Rico were extras to a busy schedule. Ruthalee is enjoying her second year of high school teaching. Tiffany [14] is active in band front, Brent [12] with soccer, and Bradley [6] "with keeping Mom & Dad busy."

JIM DEMSKI [Ph.D.-'66] and wife Marilyn with daughter Brenda enjoyed a sojourn to England and France this past summer. Jim presented a paper at the Plant Virus Epidemiology Meeting, Oxford, which fortunately coincided with the festivities of the "Royal Wedding." Daughter Barbara is now married and lives in Jackson, Georgia, just 20 miles distant from Griffin. Brenda has obtained her private pilot's license, the first step in her goal to be a commercial pilot. Georgia continues to be dry [30" deficient in some areas], which may account, in part, for a high incidence of viruses in many crops. A lucky-unlucky accident in September involving a speeding driver saw no serious injury to Jim or the speeder but a total destruction of his old truck. What a way, however, to get a new one and avoid an argument, "But Jim, you don't need a new truck!"

C. GARDNER SHAW [M.S.-'40], who has been a Professor of Plant Pathology at Washington State for many years, has recently become involved with a USAID-Washington State project in Jordan, having served on the design team and now scheduled for a two-year assignment which will begin May, 1982. Additional travels will take him to the South Island of New Zealand for five months, where he will work on downy mildew of boysenberries and visit his son, who is on the faculty of the Department of Psychology, University of Canterbury, Christchurch. Mrs. Shaw will accompany him on his travels.

FEDERICO CARLOS MEYER [Ph.D.-'72] is now working for the "Inter-American Institute for Cooperation on Agriculture" [IICA] as Plant Protection Specialist. He is located in Montevideo, Uruguay, and is responsible for the coordinated activities of the plant protection agencies of Argentina, Brazil, Chile, Paraguay and Uruguay. His address: Casilla de Correos 1217, Montevideo. Carlos says, "I hope to see my Penn State friends in Montevideo and to share with them a good Uruguayan beefsteak while we remember our old days at Nittany Valley." That's an offer well worth considering!

P. G. MOGHE [Ph.D.-'74] sends greetings from Akola, India, where he continues serving as Professor of Plant Pathology with responsibilities in teaching and research and as a newly elected member of the University Senate. His major research is concentrated on studies to locate sources of resistance in sponge gourd and papaya to virus infections. Two doctoral students are completing studies on the ergot disease of sorghum and the role of viruses in malformation of chilies. He and wife Rohini enjoyed a summer holiday in the lofty, snow-clad Himalayas and visited Shri Badrinath and Kedarnath Shrines situated at an altitude of 10-12,000 feet in the Garhwal District of Uttar Pradesh. Additional time was spent at the hill stations of Simla and Massorie.

P. L. PATIL [M.S.-'71] has since his return to India completed requirements for the Ph.D. degree from Mahatma Phule Agricultural University, Rahuri, and is now working as Agricultural Bacteriologist, College of Agriculture, Pune, India. He has worked cooperatively with Dr. S. P. Capoor, retired plant virologist, on a virus-fungus-Rhizobium soybean disease complex and has guided two post-graduate students in their studies.

WILLIAM J. STAMBAUGH [Ph.D.-'57] has recently been appointed Associate Dean for Academic Programs in the School of Forestry and Environmental Studies, Duke University. An active research program on "hypovirulence in Endothia" appears assured with a continuation grant from the U.S. Forest Service and additional funds from the H. Smith Richardson Charitable Trust. Large [9" dbh] American chestnut

survivors have been located in western North Carolina and Bill feels that "hypovirulence holds promise; however, we view its potential for sprout tolerance to infection with guarded optimism." How nice it would be if American chestnuts were again available for turkey stuffing. Two grandchildren joined the Stambaugh clan in 1981, a son to daughter Amy and husband Chuck, while daughter Nancie and John provided a daughter. A Southwide Forest Disease Workshop in Gainesville provided an opportunity for work and play in January, and Bill and Shirley enjoyed a visit with BOB [Ph.D.-'64] and Louise SCHMIDT.

LEON R. KNEEBONE [Ph.D.-'50] and wife Libby spent two weeks in the Hawaiian Islands as delegates to the World Methodist Conference this past year, followed by a cruise to Alaska, stopping at Sitka, Juneau, Ketchikan, and Victoria, B.C. Leon reports, "An exciting fjord flight and a visit to the face of a glacier, coupled with the sight of thousands of spawning salmon and numbers of bald eagles made it a memorable trip." The Kneebones also enjoyed a southern Caribbean cruise to St. Thomas, St. Kitt, Bonaire, Curacao, and Venezuela. Leon continues to consult in the mushroom industry and says that Penn State alumni are "generously scattered throughout the mushroom industry."

HELP!!

We no longer have current addresses for the following persons. If anyone can bring us up to date on any of these, we would appreciate hearing from you.

Thanks--

Steven Bonifacino
Kathy Mayo Delozier
Tobias Enyinnia
Eric Fritz
Dennis Fulton
Leonard Giddix
Carol K. McGugin
Jane C. McKnight
Chris Miller
Bob & Debbie Moore
Deborah J. Murdock
H. W. Wertz
Mark Zick

Roster of Students

<u>Name</u>	<u>Degree</u>	<u>Advisor</u>	<u>Research Interest</u>
ARNY, Carol	M.S.	E. J. Pell	Air Pollution Effects on Plants
BERKETT, Lorraine	Ph.D.	K. D. Hickey	Integrated Pest Management
BIGGS, Alan	Ph.D.	D. D. Davis	Air Pollution - Plant Disease Interactions
BROSCIOUS, Steven C.	M.S.	J. A. Frank	Development of Crop Management Systems for Winter Wheat
DOUGLAS, Sharon	Ph.D.	R. T. Sherwood/ F. L. Lukezic	Powdery Mildew of Oats - Disease Resistance Mechanisms
GETTIG, Russell	Ph.D. (Genetics)	W. J. McCarthy	Insect Virology - Molecular Biology
GREEN, Nancy	M.S.	W. Merrill	Christmas Trees
GREGORY, Vann	Ph.D.	J. E. Ayers/ R. R. Nelson	Disease Resistance, Epidemiology, Yield Loss Assessment
HORNA, Sheryl	M.S.	D. J. Royse	Mushroom Spawn
HUNT, Gregory	M.S.	J. R. Bloom/ E. J. Pell	Air Pollution Injury to Plants
ILLMAN, Barbara	Ph.D.	E. J. Pell	Physiological Plant Pathology
KAUFMAN, Ted	M.S.	J. R. Bloom	Saprophytic Nematode Disease Complex of Mushrooms
KEHNE, Caroline	M.S.	S. P. Pennypacker	Epidemiology, Crop Loss Assessment
KING, Eileen	Ph.D.	D. R. MacKenzie	Crop Loss
LALANCETTE, Norman	M.S.	K. D. Hickey	Epidemiology/Disease Management of Tree Fruits
LAWRENCE, Ellen	Ph.D.	P. E. Nelson	Genetics of Fusarium
LOTSTEIN, Richard	M.D.	D. D. Davis/ E. J. Pell	Air Pollution - Plant Disease Interactions
MONROE, James	M.S. (Genetics)	W. J. McCarthy	Insect Virology
MOLINA, Agustin	Ph.D.	D. R. MacKenzie	Epidemiology
MOLINA, Gloria	(Non-degree)	J. R. Bloom	
MORELLI, Laurie	M.S.	P. E. Nelson	Anatomy of Chrysanthemum Infected with Fusarium and a Viroid
PARISH, Priscilla	M.S.	K. D. Hickey	Sampling Powdery Mildew on Apple
PAWLOSKI, Judy	M.S.	E. J. Pell	Effect of Nitrogen Dioxide on Potato Tuber & Foliage Total Glycoalkaloid Content
PELLETIER, Jean-Robert	M.S.	R. D. Schein	Epidemiology - Analysis of Components of Resistance
RAID, Richard	M.S.	S. P. Pennypacker	Epidemiology
ROYER, Matthew	Ph.D.	R. R. Nelson	Epidemiology, Genetics
SIM, Susan	M.S.	K. T. Leath	Resistance to Bean Yellow Mosaic Virus in Red Clover
SMALL, Daniel	M.S.	T. A. Toussoun	Fusarium Crown and Root Rot of Tomato
SPEAR, Mark	M.S.	D. J. Royse	Mushroom Genetics - Protoplast Technique - Genetic Engineering
SRISKANTHA, Alagacone	M.S.	J. S. Boyle	Virology
STEVENSON, Richard	M.S.	S. P. Pennypacker	Epidemiology
STOCKWELL, Christine	M.S.	R. T. Sherwood	Physiology of Disease Resistance
THEBERGE, Robert	Ph.D.	D. R. MacKenzie	Epidemiology
THOMAS, Garfield	Ph.D.	R. R. Nelson	Disease Resistance, Epidemiology
WACH, Mark	M.S.	J. S. Boyle	Chemical Control of Fungi - Virus and Mycoplasmas
WATSON, Gregory	M.S.	J. A. Frank/ H. Cole	Atrazine Residue Effects on Winter Wheat Diseases and Yield; Wheat Seed Treatments

Obituaries

Dr. Walter S. Beach, born in Brownton, Minnesota, January 24, 1890, who received his Ph.D. at the University of Illinois in 1918 and joined the faculty at The Pennsylvania State College as Instructor in Plant Pathology the same year, died July 19 in Largo, Florida at the age of 91. Dr. Beach retired as Professor of Plant Pathology in 1955. His research was concerned with diseases of vegetables, tobacco and mushrooms, and many of the recommended control practices developed from these studies are still applicable today.

Dr. O. D. Burke, born in Battle Creek, Iowa, March 2, 1898, died in State College this fall. "O. D." joined the faculty in 1935 as Assistant Professor of Plant Pathology Extension, after receiving the Ph.D. degree at Cornell University the same year. Dr. Burke taught vocational agriculture in Arkansas and had been Head of the Department of Agriculture at Holmes County Junior College in Mississippi previous to his decision to become a plant pathologist. Dr. Burke's area of responsibility was the control of diseases of potatoes, tobacco and vegetables. Upon retirement as Professor Emeritus in 1963, O.D. became Head of the Department of Biology, Grove City College, where he served until 1970.

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