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# Plant Pathology Collection Development Policy

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### Plant Pathology Collection Development Policy

University Libraries, University of Nebraska-Lincoln Elaine Nowick, Plant Pathology Liaison Librarian, October 2009 Approved: CDC, December 2, 2009

## I. GENERAL ACADEMIC PROGRAM INFORMATION

The Department of Plant Pathology at the University of Nebraska-Lincoln (UNL) has a long tradition of excellence in research and service to the state, the nation, and internationally. Their mission is to provide solutions to plant disease and health issues, develop new knowledge of plant-pathogenic and plant-associated microorganisms, and provide quality, relevant education. Works collected for the Department focus on diseases and disorders of plants, but relevant materials are also found in other subject areas such as botany, agronomy, biochemistry, microbiology, food science, and entomology.

### **Plant Pathology Department**

The Department of Plant Pathology performs an essential role in improving and monitoring the health of plants grown for economic, environmental, and amenity purposes. It does so by innovative leadership in outreach education and research, and by fostering economic development and market competitiveness.

Partnerships with educational, state, federal, public and private sectors enable plant pathologists to provide dynamic programs that are ecologically sound, economically and environmentally sustainable, socially responsible and scientifically appropriate.

The department was established in 1884 as a faculty of the Department of Botany. In 1920 the Department of Plant Pathology was formed in the College of Agriculture. The first staff members in Plant Pathology were transfers from Botany in the College of Arts and Sciences. The relationship with the College of Arts and Sciences continued, and continues to this day, with Plant Pathology graduate degrees being offered through the School of Biological Sciences in the College of Arts and Sciences.

Practical plant disease problems were the emphasis in the early years of the department with the focus being on potatoes, cereal crops, sugar beets, alfalfa, and shelter belt trees. The Department gradually grew from two scientists in 1920 when the Department was officially founded, to its present component of 16 including two USDA-ARS faculty.

Basic research in Host-Parasite Interactions, Disease Resistance, and Virology have been a major contribution of the department beginning in the 1950's. Three scientists from Nebraska have been elected to the United States National Academy of Sciences from the Department. Dr. Myron K. Brakke's seminal work in virology and development of the ultracentrifuge for elucidating biophysical properties of plant viruses via density gradient centrifugation resulted in his election to the National Academy of Sciences in 1974. Dr. J.M. Daly's research on fungal toxins as the causative mechanisms on cereal diseases lead to his election to the National

Academy of Sciences in 1984. In recognition of his research on large dsDNA-containing viruses that infect algae, (chlorella viruses and phycodnaviruses) and sequencing of the virus PBCV-1, Dr. James L. Van Etten was elected to the National Academy of Sciences in 2003.

From July 2000 to 2002 Dr. Anne K. Vidaver (Professor) was on leave from the Department to serve as Chief Scientist of USDA NRI Competitive Grants Program. In 2005 she was appointed to the NIH National Science Advisory Board for Biosecurity and serves as the only "plant" member on the board.

An undergraduate major in Plant Protection Sciences is offered and classes for non-majors in related fields are also taught through the department. Graduate programs at both the M.S. and Ph.D. level are offered in the following specialties: Molecular plant pathology, Fungal molecular genetics, Nematology, Virology, Epidemiology, Biocontrol, Disease resistance, and Plant diseases. Opportunities also exist for inter-disciplinary programs in biotechnology, plant breeding, microclimatology, plant stress, pest management, and international agriculture. Faculty research is conducted on diseases of crops of interest to Nebraska, molecular genetics and plant pathology, and viral diseases of plants. The department has a strong outreach and extension component. Research is conducted at all of the Extension Centers and faculty in the department participate in the Plant & Pest Diagnostic Clinic operated by Cooperative Extension.

## **II. GEOGRAPHICAL COVERAGE**

Collection development is concentrated on the Great Plains, but general works on plant diseases worldwide are also purchased to support international students and international research and extension projects conducted by faculty.

## III. CHRONOLOGICAL COVERAGE

The emphasis is on current material.

## **IV. IMPRINT DATE**

The emphasis is on current material.

### **V. FORMAT**

Electronic formats are preferred for current periodicals. For monographic works, the format choice is based primarily on price. Electronic formats are preferred for works that will support distance education or extension programs.

### **VI. LANGUAGES**

English is the preferred language.

## VII. LIBRARY COLLECTION

The library collection supports the research, extension, and education programs of the Plant Pathology Department. The collection concentrates on diseases of plants, but materials on microbiology and biochemistry related to plant associated microorganisms and plant disease resistance are also collected. Related materials are found in areas such as agriculture cultural methods, soils, and entomology. Appropriate materials are selected at a research, graduate and undergraduate education, and practitioner level.

#### VIII. CLASSIFICATION AND INTENSITY LISTING.

#### Materials Selected with Funds Designated for Plant Pathology

- QD415-436 Biochemistry Selected titles Research
- QK Botany Selected Titles Study
- QR51 Agricultural microbiology Plant related titles Research
- QR 201-245 Pathogenic micro-organisms and fungi Plant related titles -Research
- QR355-500 Virology Plant related titles Research
- S General Agriculture Selected titles Study
- SB 599-618 Plants and diseases of plants Research
- SB621-795 Plant Pathology Research
- SB950-1110 Control and treatment of pests and diseases in plants Research