SYMPOSIUM ON TROPICAL PLANT PATHOLOGY

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Introductory Remarks

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The principles basic to biology in the tropics are not unique, but tropical studies have been given special designations within many biological disciplines (e.g., tropical ecology, tropical entomology, tropical plant pathology, etc.). These “distinctions of convenience” are justified by the obvious contrasts of tropical and temperate zone climates and by the uniqueness of tropical species and their habitats. These distinctions are indeed appropriate within the crop protection disciplines such as plant pathology because disease control (or management) systems are often location-specific, and because the unique climatic factors of the tropics as compared to the temperate zone have a profound influence upon population levels and species diversity of potential pathogens, upon pathogen/host interactions, and upon the dynamics of pathogen persistence and dissemination. The distinct temperature and humidity conditions of the tropics influence not only the habits and development of plant pathogens, but also the means of disease control. This applies especially to the use of chemical control agents.

The areas comprising the geographic tropics includes most of the so-called “developing countries”; consequently, the tropical plant pathologist is faced with special problems. Important among these are: (i) The majority of the world’s plant pathologists (past and present) have lived in the temperate zone and worked on temperate zone problems; therefore, comparatively less is known about plant diseases under tropical conditions; (ii) there is a general lack of appreciation for the crop production losses attributable to plant diseases and their importance to the development of tropical agriculture; (iii) the personnel and financial resources generally available to combat plant disease problems in the developing countries is woefully lacking; (iv) graduate level educational opportunities in the tropical setting have been extremely limited until recently; and (v) the opportunities for plant pathologists in the tropical areas to communicate and interact with a peer group and to gain access to current literature are generally inadequate.

The American Phytopathological Society gave recognition to the unique needs of tropical plant pathology in 1971 with the establishment of the Committee on Tropical Plant Pathology. Through this Committee we will strive to enhance the role of the Society in serving the needs of tropical plant pathology in the developing world, and we hope this Symposium will contribute toward that objective. Each of the papers presented addresses an area of critical importance to the furtherance of tropical plant pathology. Opportunities for graduate education appropriate to the needs of the developing countries in the tropics must be available to provide the required personnel resource; we must know how to manage chemicals in controlling tropical diseases; and we must understand the epidemiology of tropical plant disease if we are to fashion effective, economical, and long-term control strategies.