Editorial

Plant Disease Should Increase Cooperation Among Plant Pathologists and Nematologists

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PLANT DISEASE offers a unique opportunity to effect much greater cooperation in research and extension among plant nematologists and pathologists. We are presented a fresh chance to cultivate and encourage our mutual interests and, hopefully, reinforce our historic kinship. If we ignore this opportunity, papers of interest to both groups will appear even more frequently in highly specialized journals.

Although much of the early nematological research was conducted by pathologists, nematology is evolving rapidly into an independent discipline. Numerous textbooks on specific groups of nematodes—their taxonomy, ecology, behavior, structure, physiology, and biochemistry—have been published in recent years. This increased research internationally has fostered the development of numerous societies of nematology. The recently established journals of nematology, such as *Nematologica*, *Journal of Nematology*, and *Nematologia Mediterranea*, are and will continue to be indispensable to the scientific community. Still, increasing availability of specialized journals often results in excessive isolation of the plant protection disciplines.

Although not closely related to phytopathology, the most exciting nematological research is on *Caenorhabditis elegans*. Research on this nonparasitic animal now involves more than 50 laboratories around the world. The biologists, geneticists, and biochemists working with this free-living nematode have developed their own newsletter. They recently established a *Caenorhabditis* Genetics Center. We should encourage this kind of comprehensive research program for all types of nematodes—plant parasites, animal parasites, microbivorous forms, predators, and marine forms. Such programs provide invaluable basic knowledge and advance nematology as a science. Nevertheless, progress in these concentrated areas should not cause us to lose interest in the broader aspects of plant nematology and phytopathology.

Plant pathologists tend to overlook plant-parasitic nematodes in their research, extension, and educational programs. Few departments of plant pathology adequately cover this important group of pathogens in their course offerings. The dilemma in which nematologists find themselves, that is, working in entomology, plant pathology, and independent departments, adds to the problem. The evolution toward separate disciplines has resulted in many issues of *Phytopathology* having no papers on diseases caused by nematodes. In 1979, only eight research papers on nematodes were published in our Society's first journal on plant diseases.

We cannot afford to remove the study of plant-parasitic nematodes from plant pathology. Much of the current research on nematodes concerns species that attack higher plants. Crop losses caused by groups such as *Meloidogyne* spp. are so great that international projects have been developed to aid in resolving the associated disease problems. Equally important, numerous taxa of nematodes include the primary pathogens involved in many disease complexes. Various organisms that infect or feed on plants affect the behavior of the nematodes as well as the plant's response.

Major efforts are needed to increase mutually beneficial interactions among plant nematologists and phytopathologists. Nematological research dealing with plant disease should be kept in departments of plant pathology or, at least, in closely associated departments. Regardless of departmental affiliation, plant nematologists must maintain ties with other primary-pathogen scientists. The Intersociety Consortium for Plant Protection, established in 1975, provides a special opportunity for increased cooperation and communication among nematologists, plant pathologists, entomologists, and weed scientists. This type of cooperative relationship is necessary at all levels for plant nematologists and pathologists to fulfill their primary responsibilities of providing solutions to plant disease problems. Such interactions need not hamper the progress of fundamental nematological research. We are sufficiently large in number to encourage the growth of both plant nematology and "pure" nematology.

PLANT DISEASE provides an opportunity to increase cooperation among plant nematologists and pathologists, and applied nematologists are encouraged to subscribe to our new journal. More importantly, they are invited to submit manuscripts. We do not wish to repeat the trend that developed in *Phytopathology*. Traditionally, nematologists from over the world published in PLANT DISEASE's predecessor, *Plant Disease Reporter*; the papers dealt largely with practical disease problems and their solutions. Hopefully, this tradition will be continued and enhanced in PLANT DISEASE. Development of aggressive pest management programs provides a unique opportunity for greater cooperation among plant pathologists, nematologists, weed scientists, entomologists, horticulturists, crop scientists, and workers in other agricultural disciplines. PLANT DISEASE should be an outlet for the publication of many of these efforts.

The new page charges may deter publication of some applied nematological papers in PLANT DISEASE. These charges will be especially burdensome on scientists from developing countries and may diminish the international character of the journal. Can we generate revenues from other sources to minimize this?

Finally, plant nematologists are indebted to the Council and the Publications Coordinating Committee of The American Phytopathological Society for their responsiveness to the need for including nematology in PLANT DISEASE. Feature articles on nematodes are being invited, and nematologists are serving as Senior Editor, Associate Editor, and Editorial Advisory Board members. I believe that plant nematologists will respond by subscribing to and publishing in PLANT DISEASE.