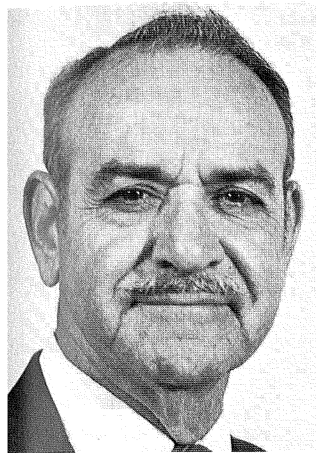


Nematologists and Global Communication

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I first heard about nematodes in 1946, while a senior undergraduate majoring in plant pathology under Ben Davis and Conrad Haensler at Rutgers University. The tempting offer of a fellowship under the nematode authority Gotthold Steiner at Beltsville convinced me that my future lay in the world of worms. At the Beltsville USDA Plant Industry Station I was also exposed to the meaty wisdom of Jack Christie, the no-nonsense indoctrination of Ben Chitwood, and, occasionally, the practical philosophies of

Jerry Thorne—names familiar to “older” plant pathologists.

I well remember a constant struggle by those nematological giants to convince a small hard core of plant scientists (mostly plant pathologists) that certain nematodes were capable of causing plant diseases. Such skepticism existed despite the nematological research of the great German plant pathologist Julius Kühn and of N. A. Cobb, the “father” of American nematology who started his career as a plant pathologist. Such a struggle was probably just as crucial to other leaders in world nematology—Goodey of England, Goffart of Germany, and Kirjanova of Russia.

Yet, it was the plant pathologists who recognized the importance of nematodes, incorporated the subject into phytopathology courses, and guided graduate students through nematological research. *Phytopathology* and the *Plant Disease Reporter* have been instrumental through the years in educating their constituency on nematode phytopathogenicity, behavioral patterns, and control. *PLANT DISEASE* likewise supports and encourages publication of nematode research. Such indoctrination has spawned the current group of plant nematologists, rightly well versed in the intimate interrelationships among phytopathogenic biota. One direct result of this has been the discovery of *Fusarium* and *Verticillium* wilts being enhanced by nematodes, as recorded by several workers. Crosse and Pitcher in 1952 did classic work in England showing the association of *Corynebacterium fascians* and two species of *Aphelenchoides* in causing strawberry cauliflower disease. No less important was the first demonstrable transmission of a soilborne virus to grape by *Xiphinema index*, causing fanleaf disease, by Hewitt, Raski, and Goheen in 1958.

As the concept of nematodes as plant pathogens solidified, the desirability of a meeting of worldwide nematological minds became evident. This led to the birth of the Society of European Nematologists in 1955, later renamed the European Society of Nematologists (ESN), the first of our nematology organizations. Shortly thereafter, in 1961, its American counterpart, the Society of Nematologists (SON), was formed, and in 1968 the 7-year-old Florida Nematology Forum sponsored the organizational meeting of the Organization of Tropical American Nematologists (OTAN). These three groups—ESN, SON, and OTAN—are international in membership.

Has all of this formation into groups that convene annually or biennially been worthwhile? Is there any concrete evidence that nematology has progressed because of such nematological unions? In attempting to resolve these controversial questions, I felt it best to solicit the opinions of several prominent nematologists. Among those responding to my queries were four from outside the United States—J. E. Edmunds of St.

Lucia, J. Heyns of South Africa, C. E. Taylor of Scotland, and B. Weischer of Germany. Five United States nematologists also responded—V. R. and J. M. Ferris of Purdue University, W. F. Mai of Cornell University, J. H. O'Bannon of the USDA, and A. J. Overman of the University of Florida. The thoughts they proffered are pooled in the following paragraphs.

Nematology is a young science, worldwide in scope, and communication among nematologists has resulted in a universal outlook toward solving problems. A prime example of such global collaboration has been cooperative investigations of cyst nematodes (*Heterodera* spp.) and root-knot nematodes (*Meloidogyne* spp.). Contacts among nematologists, with the subsequent sharing of information, have resulted in some integration of research activities. An international setting to support or discourage ideas offered by colleagues is an excellent hedge against the subsequent performance of excessive substandard research. Global communication, which invariably occurs at meetings where two or more societies are gathered, not only provides ideas that can be used in one's own work, but also presents a basis from which to evaluate the work of others.

Joint membership has provided members with newsletters bearing information that can be invaluable to those unable to attend meetings. Current research projects and the names of people working in them, postdoctoral positions, requests for needed material, and the availability of all-important membership lists are only a few examples of valuable information available to members.

Yet, there are certain impediments to joint membership. The cost of affiliation can be expensive and often prohibitive to nematologists in Third World countries. Travel to periodic society meetings imposes an additional financial burden on workers endowed with a parsimonious budget.

Among suggestions for improving society interrelationships, two respondents proposed the financing of temporary honorary memberships so that officers of each society could attend the others' meetings. This would foster closer cooperation and collaboration, possibly resulting in a super coordinating body to arrange for intersocietal meetings. This concept is currently being implemented with plans for a meeting of the three international nematology groups in Toronto, Canada, in 1984.

I can only add a hearty “amen” to the comments proposed by my responding colleagues. A more vivid example of the fruits to be derived from society interrelationships is the emergence of several countries, within the OTAN sphere of influence, into the nematological world. I recall that at the time the concept of OTAN was proposed to a small group of us by A. Ayala and J. Roman of Puerto Rico, there was very little dialogue among nematologists in Latin American countries. It is true that workers from those countries who had studied in the United States and Europe had been exposed to international nematological concepts. Yet, there were several nationals who had not been similarly exposed to such views and who were caught in the web of provincialism. In the years that OTAN has existed it has promoted an exchange of information and a sense of cohesion among the Latin Americans themselves and with SON through the medium of joint meetings, colloquia of common interest, and social activities. A tête-à-tête encounter with a professional adversary can often mollify strained relations, especially over two glasses of beer. In meeting a person from another country and discussing with him points of mutual interest, one tends not to forget the other person or to minimize that person's efforts in relation to his own.

Charles Taylor admirably encapsulated the advantages of interrelationships. “Societies,” he said, “*must* cooperate to establish their science at a high intellectual level and to present the benefits to world society. Nematodes are worldwide in their distributions; it follows that nematologists should think on a world basis.”