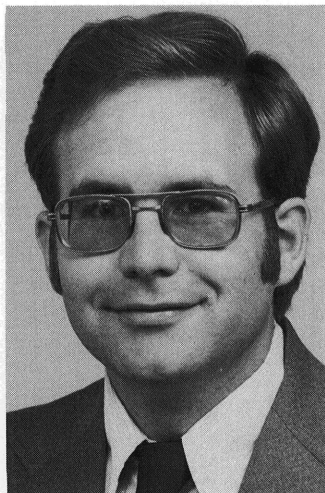


Linguistic Needs of Plant Pathologists

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The tribes of man developed in isolated locations into current-day cultures under a wide range of environments over many years. The result was the development of unique languages with local dialects. In each language various degrees of sophistication and complexity evolved as civilization became more complicated. With exploration and conquest, the world grew smaller, but languages provided barriers to commerce and to the exchange of ideas. To overcome these barriers, travelers learned more than one

language, particularly where peoples of differing linguistic origin lived fairly close to each other. In many such countries, much of the population became fluent in two or more languages.

We in the United States have been more linguistically isolated than our ancestors from other countries. Ours is a large country bordered by only two countries. Many people in the southwestern United States near the Mexican border speak Spanish as well as English, but for the majority of our life and commerce in the United States, English is the only language required. Most U.S. residents, including many of our scientists, are fluent only in English.

Until recent times, most plant pathology graduate students were required to pass examinations in one or two foreign languages to fulfill the requirements of the doctor of philosophy degree. Quick absorption of enough German, French, Italian, or Spanish to stumble through at least one page of text in that language (with a dictionary close at hand) was often all that was required. The result was often less than desirable. Terms and rules learned by rote were quickly forgotten. As the years went on it became more and more difficult to find a member of the plant pathology faculty sufficiently well versed in a foreign language to administer an examination, and now the foreign language examination is no longer a requirement in most plant pathology departments.

Is this demise of the foreign language examination a detriment to our profession? Is the preparation of our new generations of scientists less than complete? Will this generation of primarily unilingual scientists lead us into professional isolationism? Our inability to communicate in the languages of the world has already reduced our competitive edge in the world marketplace and in world technology.

I believe we are doing ourselves and our profession a disservice by not encouraging or requiring our students to be literate in at least one other living language. Our colleagues in Europe, South America, Asia, and Africa have a great advantage over many of us in reading and understanding the

scientific literature. In most educational systems outside the United States, mastery of one or more foreign languages is a requirement in the public school curriculum, and scientists in these countries can read the original texts of their colleagues in other countries. Most of the plant pathologists overseas can read and understand *PLANT DISEASE* and *Phytopathology*. Can we say the same of non-English journals published in Europe, South America, Asia, and Africa? Many of these journals publish abstracts of the papers in English, so our appetites may be whetted—but this does not substitute for reading the paper in toto. We risk missing vitally important work and losing the essence of scientific papers because of our own ignorance.

U.S. plant pathologists have not always been at such a language disadvantage. Many of our forebears in plant pathology were fluent in German, French, Spanish, Russian, Dutch, and/or Italian, not to mention Latin. During the late 1800s and early 1900s, most of the phytopathological literature was in one of these languages, with the preponderance of papers in German. Such pioneering American plant pathologists as E. F. Smith, L. R. Jones, and H. H. Whetzel read German easily; for them it was an absolute professional necessity.

Has our world changed so much we can afford to be unilingual? I do not believe so, even though much of the phytopathological literature is in English. We cannot assume that even with the best electronic media all scientific papers will be published in or translated into English. Also, translations are always subject to a certain amount of interpretation by the translator, whose ideas concerning phrases and idioms may be slightly different from the author's.

Reinstituting the foreign language requirement for all graduate students will not resolve the problem. Graduate school is really too late to begin learning another language. The best place for language education to begin is in the primary and secondary schools. We are doing a disservice to all our young people by not giving them the opportunity to learn a language at the earliest possible time. The longer this learning is put off, the more difficult it becomes. Better late than never, however. Both undergraduate and graduate students should be encouraged to take language classes as a regular part of their curriculum.

The classroom is not the only place for learning. Many have learned languages with a minimum of formal classroom instruction. The concept of self-study may be slightly dormant, but it is not dead.

The learning of languages expands our horizons and opens new worlds to our minds. Languages give us new opportunities from the world of romance to the universe of science. The thoughts of Goethe, the demonstrations of Pasteur, the landmark works of de Bary and Kühn, and even the dialogues of Plato take on a richer meaning and a fuller body when read in the original language.

Surely we are no less intelligent than our forebears in plant pathology. Plant pathologists still need foreign languages. Perhaps we do not need to read five languages, as E. F. Smith did, but we need to make the commitment to communicate with and to understand our colleagues throughout the world.