Letter from the Editor

Phytopathological Terminology: Epidemiology

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Ryan and Birch (7) believe that the choice of the term epidemiology to designate a Section Heading in PHYTOPATHOLOGY was unfortunate. They recommend that epidemiology be replaced by epiphytotiology. Since I chose epidemiology only after considering some of the aspects discussed by these authors, I should like to indicate my reasons for doing so.

My decision, in part, was based on information obtained from two sources (4, 5) cited by Ryan and Birch (7). In WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY (5) epidemiology is defined (p. 762) as "a science that deals with the incidence, distribution, and control of a disease in a population (as of animals or plants)"; epiphytology is defined (p. 764) as "a science that deals with character, ecology, and causes of outbreaks of plant diseases esp. of epiphytotic nature"; epiphytotic is defined (p. 764) as "an infectious plant disease: tending to recur sporadically usu. over a wide area and to affect large numbers of susceptible plants whenever present." In addition, I consulted "A Guide to the Use of Terms in Plant Pathology" (4) and noted the rationale for using epidemic and epidemiology in "a broad sense" and epiphytotic occasionally to avoid ambiguity. Another source, ENCYCLOPAEDIA BRITANNICA (6), provided the following statement on epidemiology–"Although originally limited to disease in human populations, epidemiology has been applied to the study of disease in animal herds and in plant life. Such usage is justified by the derivation of the word epidemic, which literally translated from the Greek means "upon the population". The population may consist of human beings, animals, plants, or what not. Thus, a veterinarian may refer to the epidemiology of cattle plague, a plant pathologist to the epidemiology of stem rust of wheat."

A check on which terms are used in other journals was made in 1975 and again recently. For example, ANNUAL REVIEW OF PHYTOPATHOLOGY has published numerous articles whose titles include the terms epidemiological, epidemiology, or epiphytotic. In titles of articles published recently in ANNALS OF APPLIED BIOLOGY (1, 3), CANADIAN JOURNAL OF BOTANY (8), and PLANT DISEASE: AN ADVANCED TREATISE (2) epidemiology has been used. And abstracting journals [e.g., BIOLOGICAL ABSTRACTS, BIORESEARCH INDEX(R)] list under epiphytotic and epiphytology several articles for which these terms or epidemiology appear in the titles.

It *is* editorial policy to encourage the use of "precise and unambiguous " (7) terms when exactness is required. But as stated in 1940 by Wood et al. (9) "It is obvious that there is a wide difference in the need for exactness in definition and use. The loose use of such terms as disease and epidemic causes little confusion or misunderstanding, whereas continued misuse of such words as immunity, resistance, tolerance, and klendusity (with resistance as a catch-all) tends definitely to confuse or mislead readers". This interpretation is reflected in the use by Ryan and Birch (7) and in other sources (4, 5, 6) of the term "infectious disease", yet exactness in definition requires that infectious describe only biotic agents and not diseases.

Based on the above considerations, my choice of epidemiology appeared to be correct and entirely consistent with current usage of the term both generally and in a scientific context. To have used epiphytotiology would have imposed on authors and readers a word that appeared, and then incidentally, in only one (4) of the many sources that I consulted. I believed that use of epiphytotiology would be other than "beneficial in key word abstracting and in literature searching" (7) because still another term would have to be considered when seeking information that undoubtedly will continue to appear under terms currently used.

I feel that the interests of authors and readers are served best if the editorial policy for PHYTOPATHOLOGY continues to encourage the use of precise and unambiguous terminology when exactness is needed. When, however, use of a term is unlikely to cause confusion or misunderstanding, editorial policy should acknowledge current usage and accord to authors the privilege to use such terms.

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