

Cotton-wilt is much more restricted in its range and prevalence on different kinds of soil than certain other vascular diseases caused by species of *Fusarium*, as, for example, tomato wilt or stem rot of sweet potatoes. Barring the presence of nematodes, if a grower reports that he has considerable cotton-wilt, it can reasonably be predicted that his soil is rather poor or worn out, lacking particularly in organic matter. If nematodes are present, then the use of organic matter in such soil will not remove the possibility of wilt development, although it may partially alleviate the losses that might be incurred by stimulating the growth of the plant. Thus, as with wilt-resistant varieties, the presence of nematodes interferes with the ability of the plant to ward off infection.

To explain these phenomena, the following theory is at present held by the writer. *Fusarium vasinfectum* is a wound parasite and invades only after some injury has occurred to the roots. This injury may be caused by various agents, including diverse microorganisms, nematodes or other soil-inhabiting metazoa, or by chemicals. Having once gained entrance into the vascular system of the root, it lives a semi-parasitic existence within the water-conducting tubes, confining itself for a large part to the non-living material within the dead vessels. Only after the living tissues are killed or greatly weakened in advance of mycelial invasion will the fungus grow and fructify in those parts. This theory is in part borne out by the fact that no amount of inoculum applied to the top of a plant will induce infection on living parts.

Because of the importance of cotton-wilt, attention is directed in this preliminary note to the possibility of its control by the use of organic fertilizers. Orton's findings (U. S. Dept. Agr. Farmers' Bul. 333, 1910), which have doubtless acted as a deterrent in the use of organic fertilizers for the control of wilt, are based on very little experimental data, and his results are contradicted by the work of Fulton (La. Agr. Exp. Sta. Bul. 96, 1907). The writer has some data which seem to confirm Fulton's work.

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EDITORIAL ETHICS IN SCIENTIFIC PUBLICATIONS

SOME weeks ago I was honored by an invitation to give a short address on "The Rôle of Wave Length in Modern Theories of Radiation," this being part of a program in connection with a joint meeting at Schenectady of the Union and Rensselaer Chapters of Sigma Xi. The address was broadcasted by WGY.

For publicity purposes, an advance copy of the address was furnished to the Associated Press.

In the issue of *Telegraph and Telephone Age* for May 16, 1927, on page 225, there appears what purports to be an article contributed by me to that periodical under the title, "The Rôle of Wave Length in Modern Theories on Phenomena of Radiation." This article contains certain parts of my address, but, in addition to the change of title, certain unfortunate omissions were made.

This material was published over my name, but without my permission having been first obtained; without advising me in advance that the article was to be thus published, and, what is of far more significance, *no acknowledgment whatsoever was given of the occasion for which the material was prepared.* The casual reader will assume, of course, that the article was prepared specially for *Telegraph and Telephone Age*.

In view of the fact that I have experienced previously several other incidents of this kind and know that others have had similar experiences, I am recording these facts in the nature of a protest against such a practice as this, which is becoming all too common. It seems to me that the ethics of the editorial profession should be based upon the ordinary courtesies which ought to be extended to an author or speaker.

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SCIENTIFIC APPARATUS AND LABORATORY METHODS

A MICRO BLOOD SUGAR METHOD AND THE BLOOD SUGARS OF INSECTS

CHEMICAL analyses of the constituents of the blood of insects have been largely neglected because of the lack of suitable quantitative micro-methods. Biological fluids, especially of insects, are always present in minute quantities, and analyses of these fluids must necessarily be made by micro methods. This is especially true if the insect, after the extraction of the blood, is to continue living. Recent work on insect blood seems to have been largely qualitative in character.^{1,2} Bishop,³ however, gives quantitative data for the blood of honey-bee larvae, using blood collected from fifty animals. Considering the variations among individuals, such results can hardly be compared.

¹ Muttikowski, R. A., 1923, Bull. Brooklyn Ent. Soc. Vol. 18, p. 127; 1924, Bull. Brooklyn Ent. Soc. Vol. 19, p. 4.

² Haber, V. R., 1926, Bull. Brooklyn Ent. Soc. Vol. 21, p. 62.

³ Bishop, G. H., 1925, Jour. Biol. Chem., Vol. 66, p. 77.