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Professor Matthew Meselson
Dept. of Biochemistry and Molecular Biology
7 Divinity Avenue
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Dear Dr. Meselson,

Thank you for the "yellow rain" documents. The Sukroongreung, et al paper and pollen 'carrier' hypothesis are particularly interesting. We will need some time to digest all the material.

The references to Fusarium spp. as leaf pathogens are as follows:

El-Gholl, N. E., J. J. McRitchie, C. L. Schoulties, and W. H. Riding. 1978. The identification, induction of perithecia, and pathogenicity of Gibberella (Fusarium) tricincta n. sp. Can. J. Bot. 56:2203-2205.
(F. tricincta pathogenic on English Ivy).

Dimock, A. W. and K. F. Baker. 1951. Effect of climate on disease development, injuriousness, and fungicidal control, as exemplified by snapdragon rust. Phytopathology 41:536-552. Cited in Baker, K. F. and R. J. Cook (ed.) 1974. Biological Control of Plant Pathogens. Freeman and Company, San Francisco.
(F. roseum pathogenic on snapdragon).

Couch, H. B. 1973. Diseases of Turfgrasses. 2nd ed. pp. 30-33. Krieger Publishing Co., New York.
(F. nivale pathogenic on various grasses).

Couch, H. B. 1966. Fusarium blight of turfgrass. Phytopathology 56: 781-786.
(F. culmorum and F. poae pathogenic on various grasses).

This listing is based only on our personal experiences and recollections. Careful, systematic review of the literature would undoubtedly reveal additional references. Also, as you may already know, other trichothecene-producing fungi, e.g., Myrothecium roridum, are well known leaf pathogens.

In our opinion, growth and toxin production by non-pathogenic epiphytes (e.g., F. semitectum) could be significant on collected foliage, especially when stored under humid conditions.

As mentioned in an earlier telephone conversation, J. David Miller (CBRT Agriculture Canada, Ottawa, K1A0C6) recently reported T-2, F-2, and deoxynivalenol production by F. graminearum strains. Submerged fermentations were used and aeration significantly affected which toxin was produced.

Sincerely yours,

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P. S. - I understant S. Sukroongreung will be visiting H. B. Schiefer's laboratory and will be testing the toxicity of Southeast Asian Fusaria.