Andrea / Schmitt

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Mr. Chip Andrea
Mr. Gary Schmitt
Select Committee on Intelligence
United States Senate
Washington, DC 20510

Dear Gentlemen:

For your possible interest in connection with the Committee's interest in allegations of toxin warfare in Southeast Asia I enclose a copy of a letter from the October 28 issue of Science written by Peter Ashton, Julian Robinson, Thomas Seeley and me. We have tried to summarize the major lines of evidence regarding the nature of the yellow rain phenomenon. More recently I have learned of new work done at the University of Illinois showing that the half-life of T2 toxin in the blood of cattle and swine following direct injection into the blood stream is less than an hour. This supports the view that the T2 reported in the blood of alleged victims cannot have originated from exposures at the time of attacks alleged to occur weeks earlier. This important line of evidence needs to be further investigated by animal experiments in which toxin exposure is through the skin rather than by injection or ingestion.

I would summarize my conclusions about the yellow rain at this point as follows:

(1) I consider, with high confidence, that the many samples of pollen-containing yellow rain alleged to be an agent of toxin warfare are in fact the natural excrement of bees. This includes the two environmental samples with the highest reported T2 concentrations (Mirocha sample FS704B and the ABC News sample).

(2) With considerable, although somewhat less confidence, I believe that trichothecene mycotoxins present in environmental and biomedical samples from alleged chemical attacks are in fact of natural occurrence.

As you may know there is a puzzling situation regarding the chemical analysis of samples for trichothecenes. Chester Mirocha has reported trichothecenes to be present in 5 out of the 6 environmental samples from alleged attacks which he has analyzed. Emery Sarver, at Edgewood, has not found trichothecenes in any of approximately 60 samples from alleged attack in Southeast Asia. One sample (FS 704B) has been analyzed by both laboratories. Mirocha reported 143ppm of T2. Sarver found no T2 and should have been able to detect as little as 0.1ppm. I have talked about the problem both with Mirocha and Sarver and find it difficult to believe that either laboratory is mistaken, a very puzzling situation.

Since I met with you in Washington, Joan Nowicke at the Smithsonian Institution and I have completed a manuscript entitled 'Yellow Rain: A Palynological Analysis' and have submitted it for publication. I have been continuing to study the yellow rain phenomenon along several other lines as well and would be glad to present an update of this work to you or the Committee if that would be useful in your further investigations.

Sincerely yours,

Matthew Meselson
Thomas Dudley Cabot Professor
of the Natural Sciences