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December 14, 1982



Dr. Matthew Meselson
Biological Laboratories, Harvard University
7 Divinity Avenue
Cambridge, MA 02138

Dear Dr. Meselson,

The enclosed document was distributed by military personnel to members of the NRC Committee on Protection Against Mycotoxins. It was given to me by Dr. Smalley, a member of the committee.

Generally, the toxicity data detailed in the progress report and personally communicated to Dr. Smalley confirm earlier research, with two interesting exceptions. First, the dermal toxicity of T-2 toxin was enhanced 8 fold by applying the toxin in DMSO (LD-50, 1.5 mg/kg rat). Earlier, State Department officials reported 30 fold increases. Second, and more interesting, T-2 toxin inhalation toxicity appears to be quite low (see p. 24) even under ideal conditions. Notice that the total inhaled dose (.68 mg/kg) exceeded otherwise (SC,IM) lethal doses and yet the test animals were merely "irritable" etc. Also notice that the aerosol mist was generated from a glycol solution containing 25,000 PPM T-2, a concentration approaching saturation.

Based on these and other findings, I suspect that T-2 and other trichothecenes are unlikely to be lethal when aurally dispersed. I am currently trying to construct models to prove this point, and you may be able to supply me with certain information which would help.

In your 1980 Scientific American article 'Chemical Warfare and Chemical Disarmament' the amount of various nerve gasses needed per square kilometer is reported (p.39). What is your source? Are you aware of any useful technical reports which describe their dispersal? Also, where can I obtain reliable information on the toxicity of nerve agents?

Thank you in advance for your assistance.

Sincerely,

Dan Cullen
Dan Cullen