

Dennis

4 May 1983



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Dr. Matthew Meselson
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Dear Dr. Meselson:

Oxfam America is a non-profit development agency supporting projects in many Third World countries, including Kampuchea. While in most countries, Oxfam America projects can not be construed as support for local governments or their policies, the situation in Kampuchea is somewhat different in that all Oxfam America projects are administered by government agencies. For that reason alone, not to mention the human rights aspects, I think it important for OA to seriously study the evidence being marshalled by the US government.

I recently wrote to Chester Mirocha to try to get a sense of whether he thought his analytical results were being cited properly and also asking how persistent the various toxins were after being released into a tropical ecosystem. (Fish production is apparently down this year in inland waterways in Kampuchea.) Mirocha's reply was basically one of "no comment" until the publication of a forthcoming technical article on the subject. But he did enclose the article: Martin, C. 1983. "Yellow Rain and Red Wars," DISCOVER, (Feb): 100-102, from which I got your name and the fact that you feel there may be problems with the evidence.

Enclosed is a copy of some notes on recent conversations I had in Bangkok with several people close to the "yellow rain" issue, which I sent to Joel Charny, Southeast Asia Projects Officer at OA. As both Joel and I have travelled regularly over the past three years to visit several OA supported projects in Battambang province of Kampuchea, we are both rather skeptical of reports that areas we have travelled thru are zones of heavy chemical warfare.

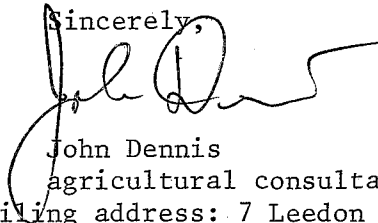
I therefore think it would be useful if Joel and I could share with you some of our own impressions and in turn learn something about your doubts concerning the adequacy of the evidence. One of my own questions is what would be the original concentration of mycotoxins when sprayed, presumably in aqueous suspension, from an aircraft. Presumably it would be quite a few orders of magnitude more concentrated than the 10-20 ppb range that seems to characterize the Nov 1982 report evidence. Why is the range of concentrations found so uniform? Knowing nothing about the rates of metabolism or degradation of the toxins, I would still think it likely that a leaf or soil sample that had actually been sprayed with "yellow rain" would retain a markedly high concentration than a human blood or urine sample which has already been exposed to various dilution factors. And from my limited experience with leaf nutrient content, I couldn't help think that the translocation argument

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at the end of the Nov. 1982 report was a bit spurious. Fusarium wilt is a virulent threat to tomato crops in Thailand. I have seen a whole field simply wither up over-night. The leaves of the plants are the most obviously affected. Are the analysts for yellow rain using a technique which excludes the vascular tissue from the sample? In nutrient studies at least it is common procedure just to grind up the entire dried leaf.

Well, I would welcome your thoughts on these matters and copies of anything you may have written on the subject. I will be based in Thailand for about a year beginning in July and thus hope to follow the situation more closely while there.

Sincerely,



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cc: Joel Charny, Boston

Poison Gas Evidence

25 April 1983

Dr. Amos Townsend, an International Rescue Committee doctor who has been foremost in insisting that poison gas has been used on the Hmoung and the Khmer Rouge, was in the States. So I talked to his assistant, an English nurse named Andrea Crossland. Whereas Townsend is a retired US air force officer, quite right-wing, and considered a fanatic by Carney and Lane (more on him later), I found Crossland to be a compassionate woman who had seen a lot of suffering and did not seem to have any axes to grind. Her evidence, much of it based on refugee accounts, went up hill and down dale in such an inclusive manner that I became quite skeptical. I also felt uncertain as to how much medical training she had had. She had grown up in Hong Kong and before coming to Thailand had worked there in public health in pest control and as a mid-wife.

Crossland began by saying that the chemical warfare (CW) systems before 1980 had been hemorrhagic and those of 1980 and after had been of a central nervous system type. I have hardly begun the thick file of reports I have now gathered on CW in SE Asia, but in view of the USIS publication in January on yellow rain, Crossland's chronology is surprising. The USIS document describes the main symptom of yellow rain as "profuse hemorrhaging" and states that Vietnamese forces have used "trichothecene toxins and other combinations of chemical agents" in both Laos and Kampuchea.

Crossland told me that she had been led to see actual yellow rain on the ground near a Khmer Rouge camp and that it very much resembled drops of yellow candle wax. I was however too dangerous to touch. She said she had also seen a Khmer Rouge soldier die of yellow rain poisoning. When I said the symptoms sounded a lot like cerebral malaria, she said, "yes, but how would you explain that so many people were sick at once." But the soldier was the only one fatally affected.

At the Ban Vinai refugee camp in Loei Province, where she works with the hmoung, she was struck that one young girl did not response to vitamins and other care. She remained listless and had a hemacrit level of only 10-14%. (The average refugee woman is about 28% and the normally woman should be 35-40% according to Crossland.) The explanation by the girl's mother, "We told her not to play near the yellow rain, but she never would listen to us." Crossland describes the pathology of the yellow rain toxin as "still a mystery." She describes it as affecting the spleen and causing something to go wrong with blood formation." It also kills livestock and wild animals. The Hmoung men, she says, are very insistent that their families only eat fresh meat that they have killed themselves. Tapioca plants are killed by the yellow rain. The roots are still edible but shrivelled and somewhat bitter she says. She has been taking blood and urine samples of Hmoung refugees for a long time (36 samples since January), but has never been told what the results have been.

What are the symptoms of the most recently affected refugees who come to the border? Lack of appetite, headache, dry cough, some sores on the face and arms. Some people fail to get better.

What did she think about the report that the soil samples sent to Australia had been fraudulent: plant pollen dusted onto the soil. "Well, I understand those samples were sold by a lowland Lao..of course you can't trust samples that are sold. And can they really say which plant those pollen grains came from..." At one point she told me how the Hmoung blow opium smoke in the faces of their babies before swimming the Mekong. "It is better to lose the babies than the adults," she had been told. A man who had just had two children shot and killed in Laos and whose baby had died while crossing the Mekong had calmly handed her a leaf sample spotted with yellow rain. By her account, it takes the Hmoung at least two weeks to reach the Mekong from the area where the CW occurs. Yet when I asked her if the leaf was still green she said, "yes, but by the time I reached Bangkok it had all turned brown."

I asked Doug Beane of CWS in BKK what he knew of the CW reports. He replied that evidently some kind of CS or tear gas was being used in Kampuchea. This would explain the reported use of gas masks, which he said would be useless against trichothecenes which act dermally. "There have been no reports of soldiers wearing plastic suits.."

According to Lt. Col. Dennison Lane, Defense Attache at the US Embassy, and sent out in 1980 mainly to track down evidence of yellow rain, "Haig clearly didn't have his ducks in order when he jumped into this issue(CW)." His admission that "a body has never been produced" echoed Paul Quinn-Judge's skepticism, "a delivery vehicle has never been produced."