WHAT PRICE SCIENTIFIC INTEGRITY?



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In the 21 years that have elapsed since I was poisoned by organophosphate (OP) sheep dip I have learned a huge amount about the history, science and political consequences associated with this group of chemicals. I cannot say that I like what I see. Several hundred shepherds and, maybe, thousands of **Gulf War Veterans** who had an OP dip formulation sprayed on their tents. bedding and latrines during their service in 1991-2, suffer long-term health effects.

Insofar as sheep dips are concerned, it was convenient for the Government to respond to my numerous questions on the subject by, firstly, saying that the products were safe. When this failed, they blamed the farmers for not knowing that OP's were poisonous - there were no warning labels on the containers! Then it was farmers' failure to wear recommended protective clothing or to invest in engineering controls. Interestingly, when the phenol disinfectant was removed from the formulation in 1992, at the height of reported adverse reactions, the reported incidence of adverse effects plummeted. As any chemist knows, phenol rots rubber, so the advice to wear rubber gloves, boots and aprons was not helpful. Later advice to wear complete waterproof protective suits and respirators was impractical for hard labour on a warm day.

During the late 1990's alternative products and injectibles were introduced. The government required users of all dips to obtain a Certificate of Proficiency for the safe use of sheep dips, skull and cross bone warnings appeared on labels and concentrate containers were made safer for users, but only after a lot of pressure from campaigners. There was then the problem of what to do with those people who claimed that their long-term health had been adversely affected by OP's. There have been a number of epidemiological studies, all of which have shown subtle psychoneurological effects in the affected subjects. Some work has been conducted on the

autonomic system effects in a few patients, but the results have always been accompanied by the rider that further research is necessary. There remain doubts and many questions as to whether long-term low level exposure to OP's causes ill health in humans in some scientists' minds.

This is where I have some difficulty on an intellectual plane. I am aware that there is scientific evidence of the chronic health effects in humans exposed to OP's that goes back prior to the 1950's, but none of the published material is from British scientists. The symptoms of chronic OP poisoning were described by researchers such as Lhos and Spiegelberg in Germany who published extensively on their studies of disabled nerve gas plant workers at the end of World War II. Dr Patricia Bidstrup (Chemistry in Industry, 12 June 1954) also described symptoms in a patient exposed to TOCP - symptoms that many affected sheep farmers and Gulf war Veterans recognise today. I cannot understand why it is, when men and women are describing the same symptoms as those earlier workers, our scientists and politicians say repeatedly, that modern OP's are not as toxic as the earlier ones and therefore they cannot cause ill health. My response is that they are still very toxic; they still act in acetylcholinesterase as well as a number of other enzymes that we are not told about and that they also affect the mitochondria, the power houses of all living creatures. Where is the scientific curiosity that asks

why thousands of people around the world suffer chronic ill health and early death after being exposed to OP products?

I understand that British expertise in OP's is more or less confined to scientists who have signed the Official Secrets Act. They cannot become experts until they have signed the Act because of the military connections - the modern generation of OP pesticides were developed from nerve gas research. When it is very obvious that there is expertise other than the home grown variety, why do members of the Government's Advisory Committees very rarely ask their scientific colleagues from abroad for assistance? If they are as independent as we are always told that they are, why is it that they seem so reluctant to pursue the truth when it is politically inconvenient so to do?

I have never believed that a court of law is the place to settle doubts about what is, intrinsically, a scientific and medical problem. Trying and failing with that route has been a stressful, expensive and unnecessary course for those who joined group actions in the last decade. What a pity it is that the Government and its advisers have never understood that what every one of my several hundred correspondents wants is not compensation, but recognition, diagnosis, treatment and prevention in the future. Perhaps if they had done, the OP story would have been different.

