

Disease of war

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Preventing a Biological Arms Race. By Susan Wright. MIT: 1990. Pp.446. £22.50, \$25.

If an image were required to sum up what biological warfare is about, it could be the remnants of the bombed baby-milk factory on the outskirts of Baghdad. The United States claims that it was a biological weapons plant, but Iraq says it was nothing other than a factory formulating powdered milk into infant feeds. Who do you believe?

A journalist on the *Washington Post* diligently tracked down the plant manufacturer (in New Zealand) which maintains that it was indeed built to process powdered milk. Apparently the factory was closed for a time and then restarted by French engineers, again to handle powdered milk. But, says the United States, it was after August 1990, and after the French had left, that the factory was used for nefarious purposes. And why, the Americans ask, was it in camouflage livery? Iraq says the camouflage can be explained simply by the availability of building material when the plant was constructed.

There is a sense of unreality about this. In fact much of the ruminating about biological warfare is unreal. So much information is shrouded in a veil of secrecy. At a time like this, anything that serves as a reminder that it is not just make-believe, or not all make-believe, is welcome. *Preventing a Biological Arms Race* is just such a reminder. Edited by Susan Wright, the book is a systematic collection of essays written by participants in the biological warfare debate. Few stones are left unturned in chapters that range over the origins of the US Biological Warfare Program (the United States destroyed its biological weapons between 1970 and 1973), the potential of genetic engineering to modify existing diseases for use in munitions, the role of international law and, of course, allegations about biological warfare.

Fortunately, for the moment, we are still only talking about allegations. But when the United States accuses the Soviet Union of violating the two international treaties that govern conduct in this area, the 1925 General Protocol and the 1972 Biological Weapons Convention, both of which outlaw biological warfare, the allegations must be taken seriously.

According to the United States, the first foul occurred in the Soviet city of Sverdlovsk in 1979. The problem was anthrax, caused, says the United States, by the release of airborne spores following an explosion at a biological weapons facility. Release of the spores was said to have caused pneumonia in some people and, therefore, the most likely candidate was pulmonary anthrax, an agent considered by the United States at one time as a suitable biological weapon. The Soviet response acknowledged that an outbreak of

anthrax had occurred, but claimed that it was gastric in origin, and caused by the consumption of contaminated meat. Anthrax is still endemic in parts of the Soviet Union.

Support for the more prosaic Soviet version of events is provided in an interview given to the *New York Times* in 1981 by Donald Ellis, then professor of physics and chemistry at Chicago's North Western University. Ellis was in Sverdlovsk at the time of the alleged incident, and said that he regularly passed unhindered within a few blocks of the site on his way to and from

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REASONS

Biological weapons plant or baby-milk factory — who do we believe?

work. Ellis felt that if there had been a release of anthrax spores, the Soviet authorities would have taken steps to protect him. Rumour has it that Ellis was not the only visiting foreign scientist; half a dozen others were also in the city at the time and were apparently allowed to move freely about its precincts.

Regrettably, the Soviet authorities neither invited senior US scientists to visit the site of the accident nor did they offer them medical records to examine. Prudence might have suggested that an invitation would have been wise, as allegations have a tendency to stick unless refuted. Although there is no requirement under the existing treaties for countries to allow inspections of sites that are the subject of dispute, the Soviet reluctance to have outsiders take a look has only fueled speculation that it had something to hide.

In view of the seriousness of the Sverdlovsk incident, it would have been extremely valuable to have had a Soviet contributor to this book addressing some of the issues raised in its chapters. Had such a contributor been found, he/she would rightly have poured scorn on the second of the American allegations, that is that the Soviet Union had

encouraged the use of fungal toxins as chemical/biological warfare agents in Southeast Asia between 1978 and 1983. These incidents, known in the trade as 'yellow rain' following the description — by a Hmong soldier from Laos — of an alleged spray attack, have come to resemble a farce. We now know, improbable though it seems, that what was thought to be a sophisticated delivery system for toxins using deproteinated pollen and uric acid, was nothing other than the excreta of Asian honey bees.

Yellow rain has now been thoroughly debunked. Scientists and others in many countries have assisted in the systematic dismantling of the US case. The most effective sceptic was Matthew Meselson, professor of biochemistry and molecular biology at Harvard. In a chapter that explains the allegations and the evidence for and against, Meselson and two colleagues point out how the Reagan administration locked itself into a "political position from which it has yet to extricate itself". The administration had only itself to blame. By failing to corroborate testimonies of witnesses, ignoring pleas by Department of Defense scientists for more time to confirm findings, and bypassing its own scientific advisers, the administration broke all bureaucratic rules by going public on the flimsiest evidence.

Internal rules partly govern the way governments behave, but international rules are also needed to keep them in check. Given its use of chemical weapons against Iranian soldiers and Kurdish civilians, Iraq clearly needs the constraints of international opinion. But from this distance it seems improbable that Iraq would house a biological weapons plant in a corrugated iron building. In view of the serious risk of local contamination it is even more questionable that Iraq would then allow journalists to trample over the bombed site to witness torn sacks of powdered milk. A far more likely site, if indeed there is one, would be the pharmaceutical plant said to be two miles down the road.

Whether or not Iraq has biological weapons remains a subject of speculation. Sadly, what is no longer just speculation is the growing body of evidence — amply documented in this book — that biological warfare is being viewed again by some sections of the military as something that may be of value. The counterweight to this is the evidence that most governments respect, and wish to strengthen, the Biological Weapons Convention. The chance to do this will occur later this year when the convention undergoes its third review (the last was five years ago). The contributors to *Preventing a Biological Arms Race* have helped to focus attention on the additional measures that are needed to support the convention, and to thwart the military interest in biological warfare. For thwarted it must be. □

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