

# Iraq's Biological Warfare Program: Past, Present, and Future Challenges

Feb 6, 1998



## Brief Analysis

**1**974: Iraqi BW program begun at Salman Pak as the al-Hazan Ibn al-Hathem Institute under the Ministry of Higher Education and Scientific Research. Funded by Iraqi Intelligence Ministry, first employees are Ministry of Defense personnel (subsequent employees recruited from universities). Initially a joint effort to produce weapons for both clandestine delivery and military applications.

1978: New, more advanced building built at Salman Pak.

1979-1985: Iraq may have suspended its program to develop BW for military applications, instead focusing on BW for clandestine operations.

1980: Dr. Rihab Taha brought into the BW program at Salman Pak.

1984: Four senior managers of the BW program are imprisoned for failure to make sufficient progress. (Iraq claims the BW program was terminated at this point. Salman Pak did continue to conduct research on BW agents.)

1985: Salman Pak taken over by the Technical Research Center (TRC).

1987: Dr. Taha moves her team into the new "al-Hakem" BW facility at Salman Pak. Iraq begins construction of facilities for production of anthrax and botulinum toxin and begins work on clostridium perfringens. Simultaneously, Iraq begins research into mycotoxins-both trichopycenes and aflatoxins-under Dr. Imad Diyad.

1988: Iraq begins work on smut spores-a plant pathogen, known in the West as wheat bug-and ricin covert application in the Biological Research Center of the Scientific Research Council, eventually transferred to the Technical Research Center at Salmon Pak.

## Status of Iraq's BW Program at the Time of the Gulf War

Iraq acknowledges the large-scale production of botulinum toxin and anthrax spores, as well as the development and fielding of BW agents in aerial bombs and missile warheads. They claim to have filled 100 R-400 bombs with botulinum toxin, fifty with anthrax and seven with aflatoxin.

In addition, they acknowledge filling twenty-five warheads for the Al-Husayn missile: five with anthrax, four with aflatoxin and sixteen with botulinum toxin. There are discrepancies concerning the quantities and the agent allocations. When you add the chemical warfare R-400s to the BW R-400s, Iraq claims to have destroyed more R-400s than they acknowledge producing.

Iraq does not acknowledge having weaponized clostridium perfringens, although they did produce 340 liters of weapon-grade prefringens spores. They do not acknowledge weaponization of ricin-which UNSCOM suspects is true-although there are numerous problems with Iraq's ricin story leading UNSCOM to suspect that something else was going on. Finally, it appears that Iraq did not achieve the means to weaponize trychophycenes.

## UNSCOM's Efforts to Eradicate the Iraqi BW Program

Even in Iraq's latest "Full, Final and Complete Declaration" regarding its BW program, submitted in September 1997, Baghdad continues to withhold, lie, and distort information to present UNSCOM with a false picture. For example, there are problems with Iraq's "unilateral destruction" of al-Husayn biological and chemical warheads, which it claims to have undertaken in 1995. It is clear that the destruction occurred neither at the time nor the location submitted by Iraq. Similarly, there is evidence indicating that Iraq produced at least twenty-five more special warheads (both biological and chemical weapons) than they have acknowledged.

Today, UNSCOM has more questions than answers about Iraq's BW arsenal. UNSCOM is quite confident that there are no residual weapons filled with botulinum toxin. Botulinum in a liquid state seven years ago is unlikely to still be potent. However, it is unclear whether Iraq dried botulinum toxin or anthrax, which would have allowed them to be stored and employed far more easily. At the very least, Iraq undoubtedly possessed the technology to do so. Similarly, Iraq apparently did not weaponize ricin, but today it is producing massive amounts of castor oil whose residual mash is at least five percent ricin. Thus, the current status of Iraq's capabilities concerning ricin remains uncertain.

UNSCOM requires answers to a range of questions before it will understand past and current Iraqi BW capabilities and be able to design an effective long-term monitoring system. However, Iraq has baldly stated that it will not provide additional information or documentation to support its positions. This is particularly problematic because if Iraq believes it has a period of time—even a few days—during which it will be free of weapons inspections, the Iraqis can immediately begin to reconstitute their production of bulk agents to be used for biological warfare. The munitions required for their dispersal are already available, so Iraq could quickly build a powerful BW capability.

This Special Policy Forum Report was prepared by Stephanie Sines.

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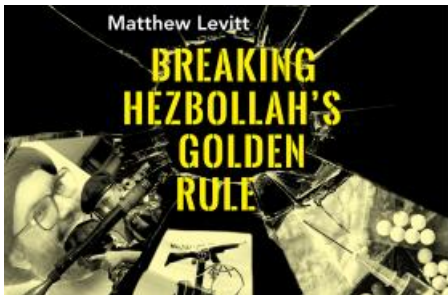
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