Chemical weapons

Congress agrees

Washington

Citing circumstantial evidence of the use of poison gas by Soviet troops in Afghanistan, the US Congress has taken the first step towards ending an eleven-year moratorium on the production of chemical weapons.

By-passing the White House — which has nevertheless so far raised no objection — the House of Representatives last week approved the army's use of funds to renovate facilities at its Pine Bluff Arsenal in Arkansas to house the production of so-called binary chemical weapons.

The amount of money is relatively small — $3.1 million out of a total military construction budget of $4,800 million. A further $19 million will be needed to equip an intended pilot plant for the production of 155 mm binary shells. Given minimal opposition, either from within Congress or from the Administration, legislators pushing for the pilot plant are confident they can persuade the House to provide the extra cash, and that the Senate will go along. If so, the Pine Bluff plant could be in operation by 1983.

The Department of Defense has planned for two further extensions of the plant at a cost of $185 million — production plants for 8-inch artillery shells containing the British nerve agent VX and for so-called "big eye" bombs for the US Navy, like the 155 mm shells containing the nerve gas GB.

Binary weapons, the latest thing in the military gas-man's catalogue, offer safe storage and use; two relatively innocuous chemical components which react to produce a military gas only after the weapon has been primed. The US Army has been working on their developmnt since the mid-1960s.

In 1974, Congress turned down a proposal to manufacture them, on the grounds that the Soviet-American negotiation of a treaty covering chemical weapons, begun that year, would be jeopardized.

Officially, those talks still drag on. In each of the past two years, the Department of Defense has asked Congress for funds for binary weapons production, pleading Soviet superiority in both offence and defence. On each occasion, the request has been blocked by the White House.

Now the political climate has changed. Although Presidents Carter and Brezhnev agreed last year in Moscow to encourage the negotiations, the Soviet presence in Afghanistan has brought progress to a standstill. The future of the treaty, some US officials consider, will now depend on broad political considerations and not on the question whether or not the United States is producing chemical weapons.

Reports of the Soviet use of chemical agents in Afghanistan helped to change the mood of Congress and the Administration, although the details are still far from clear. US officials say there is now "strong" evidence of the use of riot-control agents, "middling" evidence of incapacitating agents, but that evidence of the use of lethal nerve agents is "weak". They support a proposal for an international fact-finding mission to gather more precise details of events in Afghanistan.

These reports, combined with accusations of Soviet development of biological weapons after the anthrax outbreak in Sverdlovsk, have created a climate in which support for a unilateral moratorium is waning. Some critics nevertheless remain vocal. Chemical weapons are of little real tactical value, "contributing nothing to fire power unless the other side chooses to use chemical first" says Professor Matthew Meselson of Harvard University.

In Congress, however, those who have previously resisted the chemical weapons programme have no plans to organize opposition to the new developments. Some argue that, since the army's existing stock of wet-eye nerve bombs is deteriorating and could become a serious health hazard, the production of binary weapons would be the lesser of two evils.

The White House occupies neutral ground. It has not supported the congressional amendments to its defence request, but neither has it opposed them. In the present climate, if Congress does give the green light to the chemical weapons facility, a presidental veto is unlikely.

David Dickson

British farming

Science on show

Agricultural shows still have the same appeal for the British public as they did in Thomas Hardy's day. The Royal Agricultural Society of England's annual show, however, is more than family entertainment. The theme of last week's show, like that of recent years, was the application of science in agriculture. Publicly supported research was much in evidence.

The Ministry of Agriculture, Fisheries and Food (MAFF) has always prided itself on the value of its research and development to the agricultural industry. In the wake of the Rothschild reorganization, almost half of the work done by the institutes of the Agricultural Research Council (ARC) is under contract from government departments. This year, for example, MAFF is spending about £34 million on basic research, matched by a similar contribution from the ARC. About £2 million will come from other sources. The Agricultural Development and Advisory Service (ADAS) will spend £54 million on getting the results of research to the farmer. The work of ADAS and ARC institutes was therefore prominent at the Royal Show. No doubt in an attempt to stave off the criticism that much of this research is too basic to bear on farmer's practical problems, the exhibits included examples of both pure and applied research.

The National Vegetable Research Station (NURS) displayed its basic research on the introduction of resistance to tobacco mosaic virus into tomato plants. It is also seeking to interest British food processors and growers in varieties of small outdoor tomato plants which yield fruit that is superior to (although more expensive than) Italian canned tomatoes.

Import substitution is a recurrent theme. The NVRS, proud of having helped to reduce the level of British onion imports since the early 1970s by the introduction of Japanese varieties which can be planted all the year round, is now working towards the home-grown baked bean.

On animal nutrition, the Rowett Research Institute is improving on the starch equivalent as a means of assessing the metabolic value of feeding stuffs. The Animal Diseases Research Association was last week offering advice on the prevention of hypothermia in lambs and the Meat Research Institute on the measurement of fat deposition in live animals. The long-term objective is to find better ways of controlling the proportion of fat to lean meat.

In these and other wys, the Royal Show has become an annual celebration of the notion that British agriculture is outstandingly efficient. The increase of agricultural productivity in the past 30 years is certainly impressive. The belief that British agriculture is the most efficient in the world has become almost a myth, difficult to challenge.

Such a challenge has come, however, from the Centre for Agricultural Strategy at the University of Reading. In a report published last week, the centre says that British agriculture is by no means streets ahead of European agriculture. Belgium, the Netherlands and Denmark may be doing better. The centre agrues that British farmers have invested too much capital in their businesses, especially in farm machinery. The Royal Show last week would have tempted them further down this primrose path.

Judy Redfearn

Fusion

Studied design

Planning time is running out for the INTOR project, the international design study of a thermonuclear reactor set up last year by the International Atomic Energy Agency. At the ten-day biennial conference on fusion and plasma physics just ended in Brussels, the members of the international design team (Euratom, Japan, the Soviet Union and the United States) confirmed that their final report will be with the IAEA next June. Then, it is acknowledged, will be the time for tackling

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