

Schiefer also found that tricothecene mycotoxins do not occur naturally in the environment in the region — as they do in other places (such as Saskatchewan). Nor did he find evidence of the human illnesses that are associated with naturally-occurring tricothecene mycotoxins. His report recommends more systematic questioning of refugees so that a proper epidemiological survey can be made.

The mycotoxins in question are toxin weapons, whose production, development, stockpiling and transfer is forbidden by the 1972 Convention. Use of the weapons in warfare is prohibited by the 1925 Geneva Protocol. There has been some confusion about whether to count the

mycotoxins as chemical or biological weapons because although chemicals they are the products of living fungi.

Schiefer's report suggests that the agent involved may be not only the pure chemical but the chemical and fungus mashed together. It recommends that future field work should look for evidence of the fungi that produce the poisons.

The Canadian government has not formally endorsed Schiefer's report but has forwarded it to the Group of Experts. Its own study of the matter will continue, it says. The Group of Experts is due to report to the next General Assembly, which opens in mid-October and will stay in session about six weeks.

Deborah Shapley

European community research

Spending money

Brussels

The brief Belgian summer has not distracted officials at the European Commission from putting together plans for the new European science strategy agreed at the ministerial meeting on 30 June. Three papers have been presented to the Council of Ministers, EEC's decision-making body, covering the reform of the research and development programme of the joint research centres, the preliminary phase of the Esprit programme on information technologies and the first phase, for 1983, of the long-term plan to stimulate the scientific and technical potential of the European Community.

The last of these projects, however tentative, is the most interesting. The Commission is proposing that the Community should spend \$5 million to stimulate research in seven selected fields, thus paving the way for spending on a larger scale in the period 1984–87. For next year, the plan is that funds should be spent on a handful of fashionable fields of enquiry — new applications of cell and molecular biology, composite materials, mathematical analysis applied to optical problems, the behaviour of materials in the presence of combustion, non-destructive testing, interface phenomena and transitory effects in climatology. Information technology is already catered for by the Esprit programme.

If the Commission's proposals are accepted by the Council of Ministers, the research ministers at their meeting arranged for 30 November will invite applications for research funds in respect of both the pilot programme for research and development and for Esprit.

One of the attractive features of the pilot programme is that funds will be available for multi-national projects, including seminars and workshops, as well as for the travel and research expenses of scientists working at foreign laboratories.

The research ministers are unlikely to be as pleased with the Commission's paper on the joint research centres, the latest revision of the rolling three-year programme. The rising cost of the Super-Sara project on reactor safety is the perennial stumbling-block, especially for those governments that were dubious about the project at the beginning. The Commission now argues that work on this project should be pushed ahead so that the past investment in it will at least yield some information in time for it to be used in the design of light-water reactors, but it is not yet clear whether these arguments will prevail. For the rest, however, the Commission has proposed that the work of the four joint centres should be brought more into line with the new framework proposed for the general support of research and development. **Jasper Becker**

Sakharov note makes waves

Pugwash survives Warsaw

Last month's Pugwash Conference in Warsaw — the thirty-second in the twenty-five year history of the Pugwash movement — stressed, once again, the special responsibility of scientists to help "devise means to limit and eventually reverse" the arms race, and their "major responsibility" for disseminating knowledge about the meaning and implication of their work. As is customary, the conference concentrated on major issues of arms proliferation and control, destabilizing factors such as the possible use of food and energy strategies for political means and current or recent world conflicts — Namibia, the Falklands, Iraq–Iran, Afghanistan and Lebanon. But what the council's concluding statement called "the deteriorating international climate" was reflected in two topics which did not appear on the official agenda — a letter to the Pugwash movement from Academician Andrei Sakharov and the meeting of council members with General Jaruzelski.

The Sakharov letter was not originally intended for the Warsaw meeting but for the Pugwash Silver Jubilee Conference in Canada earlier this year. It seems to have been delayed in transmission, however, and shortly before the Warsaw meeting came into the hands of one of the intending participants, Dr Joel Primack from the University of California.

Under Pugwash procedure, because Sakharov had not himself been invited to the conference, the letter could only be circulated as a background document. Not surprisingly, there was considerable Soviet opposition — one Russian proclaiming that since twenty million Soviet citizens had died during the Second World War, it was inappropriate for "anti-Soviet propaganda" to be distributed at a Pugwash meeting. Finally, however, normal procedure prevailed.

The Sakharov letter in fact contained little new. It censured the negative stance taken by Soviet delegations at international meetings where "in all discussions of critical problems, they always behave as

well-disciplined functionaries of one gigantic bureaucratic machine".

As in several previous statements, Sakharov gave "absolute priority" to the achievement of international security and disarmament. In spite of his known opinion that there should be no absolute linkage between disarmament and human rights, he also appealed to the participants to speak out in defence of prisoners of conscience in the Soviet Union.

While generally sympathetic, the conference could not agree with Sakharov's view that "the West would be unable to withstand the forces of the USSR and its camp if nuclear and thermonuclear weapons were excluded from the balance". Rather, the conference concluded, the concept that the Warsaw Pact conventional forces are significantly more powerful than those of NATO needs "searching reexamination".

The problem of linkage seems to have underlain many of the doubts expressed by participants about the meeting of the Pugwash Council with General Jaruzelski but meetings with the head of state or government of the host country are a Pugwash tradition.

Pugwash participants say they put a number of searching questions to the general on the implications of martial law, the future of Solidarity and the fate of internees, and that he predictably replied that the present "state of war" was necessary to defend the state and economy from anarchy, but that "a number of democratically orientated social, political and economic mechanisms" had nevertheless arisen.

Even so, some participants felt that the very fact of the meeting might in some sense be interpreted as conferring a kind of approval on the current military regime. Jaruzelski, himself, however, carefully avoided any such claim, saying only that the choice of Warsaw for the Pugwash meeting was an expression of respect for the Polish nation, and of trust in its wisdom".

Vera Rich