

FORESTRY

Pesticides and Planes

from a Correspondent

AGRICULTURAL chemicals and agricultural aviation, their relevance to the management of forests and their use in the fight against pests and diseases of forest trees, was the theme of a recent symposium of the Agricultural Aviation Group of the Royal Aeronautical Society and the Society of Chemical Industry, Pesticides Group.

The section of the symposium devoted primarily to chemicals was aptly timed as its chairman, Mr D. Bevan (Forestry Commission), noted in his opening remarks. A recent Green Paper (*Forest Policy*, HMSO, June 1972) envisages a wider remit for the two million acres of state-owned forests in the United Kingdom than merely cellulose production. Conservation, wildlife management, amenity and recreation may be added responsibilities in future. These changes may eventually loosen the economic constraints which apply to the use of fertilizers and pesticides in Bristol forests, but Mr J. F. Morgan (Forestry Commission) concentrated his analysis on the potential for these chemicals on a continued need for them to pay for themselves by increased cellulose yield. Discounting their costs during the period of several decades which may elapse before the trees are felled, Mr Morgan showed that the required returns from chemicals can seldom be obtained in practice from cellulose production.

Two reports gave the latest information on the control of Dutch elm disease. Dr J. N. Gibbs (Forestry Commission) described 1972 trials with basal injections of a solution of benomyl directed against the causative fungus, *Ceratocystis ulmi*. He reported hopeful results and estimated that the treatment cost of about £10 per tree would be justified on some 370,000 of the 2.7 million large elms currently at risk in the southern half of England—justified in this case by their amenity value or the high cost of felling if they were allowed to die, and not by future timber production. Promising preliminary results with insecticides against the beetle vectors of the fungus were also reported by Mr T. M. Scott (Forestry Commission).

Two reviews dealt with the use of aircraft in forestry. After describing the situation in Europe, Dr W. J. Maan and C. H. Cottle (International Agricultural Aviation Centre) concluded that use of aerial fertilizers would become more frequent. Broad spectrum insecticides would be replaced by more specific compounds or biological control agents, but in Europe aerial pest and disease control would still be confined, for the most part, to situations where the

survival of the crop was threatened. Applications of herbicide would increase slightly and forest fires would continue to be spotted and occasionally fought from the air. This forecast seemed restricted when compared with the present situation in Canada, which was comprehensively reviewed by Professor P. H. Southwell (University of Guelph). He highlighted the divergence which has occurred in Canada between agricultural and forestry aviation, chiefly because forest spraying frequently involves uniform areas of terrain which require few turning points. Thus relatively fast and heavy ex-military aircraft are used with large payloads, achieving ten or twenty times the rate of work of agricultural operations. Ground-based fire spotting, the meeting was told, has been almost superseded in Canada by airborne infrared patrol techniques and, once located, fires are eliminated or temporarily contained by aircraft.

BRITISH ASSOCIATION

Student Conference Plan

THE British Association is to hold a student conference in January 1974. The four-day meeting, from January 2 to 5, will be centred on the Royal Society and the subject will be the social responsibility of the scientist within the community.

The BA hopes that the conference—the first specifically for students — will form a springboard for its attempts to increase the number of students interested and involved in the association's activities.

In the past the association has woefully neglected the interests of its student membership, which, before last September's meeting in Leicester, numbered only 147. During the Leicester meeting the number of student members rose to more than 200 and the idea of a student conference emerged.

The programme will open with a meeting at the Royal Society which will be addressed by one of the society's officers. On the Thursday and Friday mornings two speakers will lecture during the morning and discussion groups will mull over the points raised in the afternoons. On the Friday evening it is hoped that the groups will report to the conference and discuss their findings with a panel of speakers.

Subjects to be covered include the impact of science and technology on society and the relative allocation of resources to different areas of science.

The British Association hopes that the conference will become a regular item on its agenda and to encourage as many students as possible to attend the association is to subsidize the conference in order to keep the cost for individual students down.

COMPUTERS

Anger at the End

INTERNATIONAL Computers Limited's managing director, Mr Geoffrey Cross, accused the Select Committee on Science and Technology of asking damaging questions in the closing minutes of the committee's inquiry into the computer industry last week.

Mr Ian Lloyd, a member of the committee, had asked Mr Cross and Mr Tom Hudson, ICL's chairman, if they had any comments on the committee's questions. Mr Cross promptly quoted an occasion when Mr Lloyd had asked Christopher Chataway, Minister for Industrial Development, if the £14.2 million the government has given ICL to support its new product range would be sufficient, the select committee having recommended that £50 million support should be given to the industry. This, Mr Cross said, could be damaging and it implied that the company had not got what it needed. In fact £14.2 million was the amount it had requested from the government.

Again, Mr Cross said that ICL had been asked whether it would rather merge with Univac or Nixdorf. "That's a damaging question," Mr Cross said, "because it assumes we'll do one or the other." Mr Cross emphasized that he had made these points to the committee during private session. Mr Airey Neave, the committee's chairman, was clearly annoyed at Mr Cross's action, warning him "to be very careful about what you say in public about private sessions", and suggesting that it was the answers to the questions that might be damaging rather than the questions themselves.

After the hearing Mr Neave made it clear that the private hearing had been at ICL's request, not at the committee's.

Mr Cross also described Mr Christopher Layton's claim that ICL could not survive without government support after 1976 to 1977 as "a lot of nonsense". He had, however, had a meeting with Mr Layton the previous week, and felt that his disagreements with Mr Layton were over matters of detail rather than over fundamentals.

Mr Hudson told the committee that at present the influence of the EEC commission on the computer industry was fairly small, but he admitted that this could change considerably in the "not too distant future" if the commission acquired funds for its ideas.

ICL told the committee that as yet it had not had any contact with the Department of Trade and Industry's computer requirements board which was set up at the end of 1972. The company also said that the British government was not an advanced user of computers and relied on them less than other European governments.