EDUCATION

Nuffield Foundation

IN spite of a decrease in income from £1.7 million in 1970 to £919,065 in 1971, the Nuffield Foundation still managed to allocate over £1 million in grants during the year ending last March. This sum is, however, £389,000 less than allocated in 1969, but the foundation had more than £1 million in reserve, on December 31, 1971.

This disastrous financial year for the foundation is the result of a much decreased final dividend paid by the British Leyland Motor Corporation in 1971. The foundation is not, however, quite so dependent on the performance of BLMC this year, for the report says that the foundation sold 14 million of its holding of 40 million shares in the company in May 1971. With BLMC having this year declared an improved final dividend as well, it looks as if the foundation in 1972 will have an income of about £1.2 million.

Grants awarded to British applicants were scarcely affected by the decreased income of the foundation, but applications from some Commonwealth countries were not so successful as in previous years. A spokesman for the foundation said last week that with the increasing sums of money available in the developed Commonwealth countries —such as Australia and New Zealand —for activities which the foundation supports, the trustees felt that they should decrease their level of support in these countries and provide more for the developing countries.

The Nuffield Foundation has done less to encourage teaching innovation in higher education than in the schools. But the report says that a grant of £95,000 was allocated last year to Professor Hudson of the Centre for Educational Research in Edinburgh University and Mr R. A. Becher of the Nuffield Foundation, to set up a group to study innovation in higher education. The programme of the group is to be divided into two parts. First the group will initiate under Professor Hudson's guidance a series of inquiries into certain significant developments in the teaching programmes of some university departments, in order to analyse and contrast the beliefs and values on which the staff base their teaching, and the expectations and assumptions of the students taking the courses. To carry out this study the group will base a research worker in each department under study, which to start with will consist of the faculty of medicine at the University of Edinburgh and the department of electronic and electrical engineering at the University of Birmingham.

Second, the group will study the overall trends in undergraduate education in Britain to find out in what subjects significant changes are taking place and to investigate how the results of innovation in undergraduate teaching can be disseminated. This part of the study will be the responsibility of Mr R. A. Becher.

Other interesting projects supported include a study of the attitudes towards a career in science by the staff and students of a chemistry department within the University of London. This study, financed by a grant of £3,000, is being carried out by Dr Dorothy Zinberg, a sociologist from Harvard University who carried out a survey within the same department in 1968–69. At that time it emerged that a significant proportion of the students were disillusioned by the value of the scientific way of life and at the prospect of using their training as chemists to earn a living. Dr Zinberg will now find out whether the views of the students have hardened during three years at university.

The foundation last year also provided support for Professor Niko Tinberg, of the University of Oxford, who received £4,800 to make films illustrating behavioural research in animals. The foundation's report, however, makes it clear that this grant is an exception—"Professor Tinberg's worldwide reputation as an ethologist and as a film maker . . . proved irresistible".

DUTCH ELM DISEASE

No Immediate Relief

THERE are no signs yet that Dutch elm disease is abating in Britain. The first returns of the 1972 survey of Dutch elm disease are now being received, and although it is too early for clear conclusions to emerge the subjective opinion within the Forestry Commission is that the position is no better this year than last, and may even be worse.

The survey of 1,700 plots began six weeks ago and detailed results should be available very shortly. It appears that there have been marked improvements in certain areas over the past year, but new losses in other areas make many experts fear that still more of Britain's 18 million elms are affected, in spite of efforts made by local authorities over the past 18 months.

The only method of controlling the disease at present is by felling trees which have become infected by the fungus (*Ceratocystis ulmi*) which is carried from tree to tree by two species of elm bark beetle, *Scolytus scolytus* and *S. multistratus*. Local authorities are responsible for control, and £250,000 has been made available by the Forestry Commission to help meet the administrative expenses, but no money is available to help with the cost of felling the trees and compensating owners. The cost can be high. Up to March 1972 Croydon Corporation alone had spent £25,000 of ratepayers' money trying to eradicate the disease.

Elm disease has fluctuated over the years in Britain, reaching a peak in the 1930s, and the Forestry Commission admits that when the disease increased in 1970 they assumed—at first—that the increase was temporary. Research at Alice Holt Lodge, one of the Forestry Commission's chief research stations, was running at a low key, costing only a few hundred pounds a year. In 1971 the Forestry Commission, realizing the gravity of the situation, spent some £30,000 on research, and this year will spend £35,000, while the Natural Environment Research Council (NERC) has now started a fundamental research programme that will cost at least £23,000 a year for the next three years.

In the immediate future research offers little hope of rapid control. At Alice Holt Lodge the Forestry Commission is concentrating on the immediate problems of control, developing fungicides that can be injected into individual trees (this work is carried out in cooperation with the USA, which has been ravaged by the disease since 1930), and examining pesticidal sprays which could be used against the beetles that spread the disease. Both these methods are likely only to be of use in protecting individual trees of great amenity importance; injecting 18 million elms with fungicide is not a practical proposition.

If the disease is to be controlled in the near future it will be by destroying diseased bark. To date, £100,000 of the £250,000 that the Forestry Commission made available has been spent by local authorities, and the rest is likely to be spent this year. After that, where will the money come from? The Forestry Commission provided the £250,000 out of its income of about £16 million a year and as yet central government has refused to help local authorities with the actual costs of tree removal. As it is, some local authorities have tackled the problem zealously, but this is of little avail when a neighbouring authority, as in fact happens, takes no action.

But there are important lessons to be learnt from the present problem. Little research has been done until now on diseases of amenity trees. Now that NERC has started basic research on the population dynamics of scolytid beetles, the development of the disease, and the possibilities of using native pathogens to control the beetles—it should not be long before a fundamental knowledge of controlling diseases that attack amenity crops such as elm trees will be built up.