

AIR POLLUTION AND FORESTRY

J. L. Innes. Forestry Commission Bulletin 70. HMSO, London 1987. pp.40, price £3 (by post).

The fact that one quarter of this publication is given over to a listing of almost two hundred references (all of them recent) might give some indication as to the amount of work presently being published in this area throughout Europe and North America. This bulletin, published during the European Year of the Environment, reviews and summarises much of this work and in so doing presents the information in a very readable and objective fashion. This latter quality is very commendable in any publication dealing with atmospheric pollution as the subject is a very emotive one and one that is often approached and written on in a biased way.

The author firstly reviews such areas as origins and depositions of pollutants, acidification of rainfall, forest soils and streams and the phenomenon of forest damage. He then concentrates on a discussion of the possible causes of forest damage and presents evidence for and against various hypotheses in such areas as climatic change, gaseous pollutants, nutrient deficiencies and disease and/or insect attack. The most popular at the present time is, however, the multiple stress hypothesis. This suggests that certain factors predispose a tree to damage while others then contribute to the damage. Air pollution, therefore, may be a likely predisposing stress while adverse soil conditions in conjunction with severe climatic factors (e.g. severe drought or frost) may then lead to an overall decline of the tree's health.

Although somewhat disjointed, the sections in the publication dealing with damage in Britain and the current research work being carried out by the Forestry Commission, suggest that figures reported from their 1986 Forest Health survey are similar to those being reported from some continental European countries. These data show higher levels of damage than those observed, for example, in the 1987 Forest Health survey in Ireland. The author, however, correctly points out that interpretation of the symptoms (discolouration and defoliation) that are observed in such surveys is extremely difficult.

This publication reviews a topic in which new information is being published constantly. It is, therefore, a valuable summary of recent work and is written in a style which makes the information available more accessible and certainly more readable to the non-specialist.

Michael Keane