Forest Fertilization

The five sessions of this symposium trace the development of fertilizer use in northern Europe and consider growth factors and assessment of fertilizer needs of forest trees. Methods of application, the results of fertilizer use as well as quality and economical aspects of fertilizer application in Europe, the British Isles, Japan and eastern North America. The 37 contributions are well organized, written in clear, factual style in English (23 papers) or German (14 papers) and contain many tables, diagrams, graphs and photographs of interest to forest managers.

The main theme underlying many of the presentations is the need for increasing intensity of management of forest lands to meet increasing demands for fiber and timber. It is clear that forest fertilization has moved well beyond the experimental stage. For example in Sweden one firm is using 15,000 tons of urea over approximately 60,000 hectares. The annual expenditure for this treatment which is carried out completely from aircraft is approximately $2 million. The increased yield resulting from the application of fertilizer is sufficient to supply the annual raw material needs for an additional large pulp mill.

One author pointed out that fertilization for wood production can no longer be ignored; it has come to stay. According to the author what is urgently needed are the resources to continue to develop guiding principles for fertilization of forest lands on a global scale. Obviously much expansion of effort is required to accomplish such a feat since current experience is limited largely to temperate zone forests.

A similar sense of breadth and urgency is voiced by still another author who called for international collaboration through appropriate teamwork and the use of systematic soil survey and climatic data now becoming available in most countries. It is apparent that foresters, like other crop producers, are becoming apprehensive about the magnitude of future requirements. Details of techniques for determining nutrient needs and application rates are discussed at length and consideration is given to effects of fertilizers on some aspects of the forest ecosystem such as the activity of certain insects and diseases. It is interesting to compare the apparent lack of concern for broader aspects of environmental quality in the Finnish Colloquium in 1967 with the programs for two forest fertilization workshops scheduled for 1970 in the United States. At both of the 1970 sessions considerable time is scheduled for detailed discussion of possible ecological repercussions caused by application of fertilizers over large land areas. This indicates the rate at which sensitivity to ramifications of management has increased.—G. K. VOIGHT and PETER TRIP. Yale University School of Forestry, New Haven, Conn.

Soils of Central Tien Shan

The Tien Shan Mountains are about 500 km north of India and about equally divided between Kirghiz SSR and Sinkiang, China. Central Tien Shan is in the territory of the Kirghiz SSR and adjacent to China on the south and southeast. It includes two major parts: the Issyk-Kul basin and Inner Tien Shan. Central Tien Shan consists of mountain ranges and the Issyk-Kul basin. This central Tien Shan province is divided into soil provinces and these into districts where necessary. The climate, topography, soils, crop production, agricultural problems and alternatives to improve the agriculture are discussed for each district or province.—ANDREW ANDREWS, Lincoln, Nebr.

Panel on Volcanic Ash Soils in Latin America, July 6–13, 1969

Sponsored by the Training and Research Center and the Graduate School of the Inter-American Institute of Agricultural Sciences (IAIAAS) and the United Nations Development Program administered by FAO. H. W. Fassbender, IAIAAS, Panel Coordinator.

Members of this panel contributed papers on soils formed from volcanic ash which, with their recommendaions for the future, constitute a comprehensive compendium published by the sponsoring agencies. These contributed papers present a sweeping picture of the morphology, distribution, composition, fertilization and management of these unique soils from the Pan-American Northwest of the United States and South America to and including Chile. The panel report is actually broader in scope than the title indicates, as it also includes discussions on the fertilization of volcanic ash soils in Hawaii, the use of the