

242. By total devotion to teaching, a full forestry syllabus can be managed *after a fashion* by as few as three lecturers; it has not, however, been the experience of old-established European schools that such a minimum staff is academically or economically sound. In forestry, as much as any applied science, a breadth and freshness of outlook is required of its teachers, which can be maintained only by research, with time and scope to keep abreast of current forestry developments.

243. That is the basis upon which all the above representative Schools of Forestry have formed their respective policies; some, of course, more generously endowed and equipped for complementary research than others.

All the continental Schools of Forestry have, in their evolutionary development, depended largely upon liaison with Forest Research Institutes to complete their staff establishment; hence the consistent locational affinity one for the other, or even complete blending of both which, for instance, characterizes Hann-Muenden.

Research obviously suffers if teaching is unduly imposed upon it, and in recent decades much thought has been given in Europe to the means to achieve the fine balance between research and education, with due regard to the accepted fact that a liaison is desirable if not indispensable.

244. It is in Finland, Norway, and Sweden that the most impressive results in solving this problem are to be found. These three forest countries have reached the common conclusions, through their separate experiences, that—

- (a) The School of Forestry and Forest Research Institute should be adjacent and in close liaison.
- (b) Each should be self-contained as far as possible, dual capacity staff being justified only in rare and minor subjects.
- (c) Forestry lecturers should undertake research up to 50 per cent. of their time and be provided with adequate research facilities; some control over duplication of research being exercised.

These conclusions have been put into effect in the three Scandinavian countries and are commended as long-term objectives.

245. The primary lesson which should be learnt from long European experience is, however, to avoid the temptation of establishing an inadequately staffed forestry faculty. The minimum staff which can be recommended is a lecturer for each of the following subjects: Silviculture: Utilization; Management; Protection; and Forest Policy (including valuation, economics and administration); and supplementary part-time lecturers in special subjects form the staff of a Forest Research Institute.

246. *Adequate Teaching Facilities Should Include Ready Accessibility to Forests and Forest Industries.*—It was evident in all countries visited that the standard of higher forestry education bore a direct ratio to facilities and practical training.

Recognition of the former was reflected in the modern facilities provided in the Helsinki School of Forestry, in the reconstruction of the Swedish and Norwegian School buildings, and in the decision to build a new School of Forestry at Zurich.

247. In regard to the latter, nothing impressed the writer more strongly than the importance attached to practical forestry training in continental countries, perhaps because this emphasis contrasted sharply with the relatively limited practical training which British Schools of Forestry are able to provide.

In particular, the management of a forest by a School of Forestry (Zurich; Nancy Helsinki; Stockholm) is a practice strongly to be commended.

RESEARCH

248. *Central Forest Research Institutes Provide the Basis Upon Which the Forest Management in Europe Develops.*—The centralization of forestry research in one State-endowed institution is a feature of all European countries visited. Even Germany, which has traditionally favoured decentralization of research, now recognizes (at least in the Western Zones) the merit of a strong central institution.