

Book Reviews

Das Schrifttum der Bodenkultur. Wien, Austria: Hochschule für Bodenkultur. Jahrgang 1, Heft 1 (Mai 1948), 36 pp.; Heft 2 (Juli 1948), 48 pp.

The Hochschule für Bodenkultur, Austria's major institution for agricultural research and teaching, in Vienna, where the periodical reviewed is being compiled, has a history as long as most institutions of its kind in Europe and America. The Hochschule is fortunate in having as its chief librarian and documentalist Sigmund von Frauendorfer, well known for his long, successful service as library director of the International Institute of Agriculture in Rome. In that capacity he took full advantage of the unusual opportunity to increase and improve the cooperative bibliographical undertakings in agriculture, forestry, and the related sciences.

It is probably rather general among Austrian leaders today to look upon international cooperation as something more than a necessity imposed upon this small country, which is surrounded by a number of large and powerful neighbors. The current journal, *Phaidros* (issued by the Nationalbibliothek), for example, similarly conveys a genuine interest in bringing about intellectual as well as aesthetic and ethical agreement between various cultures. Even a general newspaper such as the *Neue Freie Presse* shows tendencies of this kind. It is certainly reassuring to see in these Austrian publications an undaunted spirit of responsibility and constructive criticism which accepts other values with dignity and share its own qualities generously.

Dr. Frauendorfer leads off with a good summary of the nature and purpose of documentation, giving special reference to agriculture and forestry. For many years he has emphasized the need for instruction in documentation methods, and we are not surprised to find it repeated. He states that excellent and thorough bibliographies are of little value unless the potential and expected users are actually benefited.

The second issue has, as its lead article, a discussion of the Austrian agricultural press since the end of World War II, followed by a detailed bibliography of the 68 journals mentioned. Dr. Frauendorfer suggests that there is room for planning in this area in order to avoid uneconomical duplication of effort where there may be two journals for hunting and two for the sawmill industry, besides special ones in the fields of forestry and lumber.

The same able and highly instructive manner of reporting and appraisal displayed in the leading articles is shown in the review section. This and the special review department for periodical publications may prove to be the most valuable part of the *Schrifttum der Bodenkultur*. The sovereign objectivity of the editor, which should assure this journal an important place in the international agricultural world, is seen in the discussion of the Hudson-Richens pamphlet, *The new genetics in the Soviet Union*.

The scope of the *Schrifttum der Bodenkultur* is comprehensive in its subject matter and cultural and language affiliations. It is to be hoped that the editor will receive effective assistance from within and without Austria in making the new journal fulfill his aspirations.

The international book exhibition, sponsored by the Hochschule für Bodenkultur during June 1948, reported in Heft 2 of the *Schrifttum*, pp. 45-46, presented good selections of recent publications from several countries. This should inspire Austrians and visitors from other countries to step forward and match the honest and sincere efforts of this little but important land.

ICKO IBEN

University of Illinois

Equazioni differenziali. F. Tricomi. (Ed.) Torino, Italy: G. Einaudi, 1948. Pp. 313. (Illustrated.) 2400 lire.

This textbook on advanced ordinary differential equations, mainly of linear type, contains the author's improvements of Bendixon's theorem on the shape of solutions, and also of a theorem by Sonin and Pólya on the conditions under which the maxima and minima of a solution of a second order linear differential equation form a steadily increasing or decreasing sequence. Great care was given to general theorems on the location of zeros of the solutions; theorems on the zeros of Bessel functions are derived from much more general ones in a very simple manner.

The study of the boundary value problems of the Sturm-Liouville type is based on an ingenious and quite elementary transformation of Prüfer which reduces the problem to a single differential equation of first order. The author discusses the behavior of the characteristic values as the differential equation changes as well as relations to integral equations. A chapter on the so-called asymptotic methods includes a brief outline of the Laguerre and Legendre polynomials and illustrates numerically how good the asymptotic approximations under appropriate conditions are. A chapter on differential equations for complex variable includes the customary topics and also methods of solution through divergent series. The book has pronounced traits of originality in the choice of topics and particularly in its manner of presentation. The latter may be exemplified by the introduction of the elliptic functions of Jacobi as an application of a classical theorem on the existence of solutions of differential equations. The clarity of exposition, good printing and appropriate drawings make this book pleasantly readable.

I. OPATOWSKI

The University of Chicago