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BOOK REVIEW

AUBERT, H., PINTA, M.: *TRACE ELEMENTS IN SOILS*. — Elsevier Scientific Publishing Company, Amsterdam 1977. 395 pp. US \$ 49.50, Dfl. 145.00.

This work has brought up-to-date the knowledge acquired in this field in I'O.R.S.T.O.M. laboratories as well as abroad.

In the field of agronomy, in particular, trace elements play a major role in soil fertility. The absorption of these elements by plants in too low or too high a quantity can bring about deficiency or toxicity diseases in these plants and, ultimately, in the animals which fed upon them. That is why agronomists, geochemists, pedologists, and biochemists have been interested in these problems for a long time.

The data included in this bibliographical study principally concern fifteen elements which have been most frequently studied in the last ten years. For example, aluminium, iron, and silicon are not included for, although considered as trace elements in plants, they are found in important quantities in soils. For certain elements, such as boron, molybdenum, manganese, cobalt, zinc, copper, and nickel, a relatively important number of bibliographical references and publications of quite a different nature were compiled. In most cases, the work concerns systematic research on one or several elements in the different types of soils of a well-defined geographical region, sometimes with the aim of compiling a distribution map of these elements (the U.S.S.R., for example), but one can also find a study limited to only one element of a very large number of soils of different regions of the same country (India, for example), or a study of a very limited number of soils (study of a particular deficiency). For other elements, such as chromium, iodine, vanadium, lead, and selenium, the numbers of references and publications are less numerous. The data which were classified element by element were compiled into synoptic tables. The reader will notice that in tables the 7th Approximation (U.S.D.A.) Soil Classification System has been taken into account for the classification of soils.

A table is given for each element. The following headings are used in the tables (pp. 144 to 395): origin, parent rock, soil type, total contents, plant-available contents, deficiency or toxicity, etc. The list of bibliographical references is found in the last column of each table.

To these bibliographical references were added the analytical data of the Pedology Spectrographic Laboratory of the "Services Scientifiques Centraux" de l'O.R.S.T.O.M. This laboratory has fulfilled the requests of agronomists, pedologists, etc. involved in research work in tropical countries for the analyses of trace element contents in a large number of tropical and subtropical soils, principally of Africa and Madagascar.

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