

Reviewed by Dr. D.G. Rossiter*

The stated aim of this manual is to provide an operational tool for evaluating land suitability for a variety of agricultural and forestry land uses. It is revised from an Italian-language text, and is heavily biased toward land uses as practiced in Italy. This restricts its application to similar agro-ecological and management environments.

Section I is a brief (30 page) introduction to land evaluation history, definition, and concepts. Both “soil” and “land” evaluation are mentioned, but the distinction is not clear.

Section II contains eight chapters on specific land evaluation methodologies (land capability, irrigation suitability) and loosely related topics (e.g., remediation of contaminated soils, erodibility assessment, hydrologic soil groups), as well as land evaluation for developing countries, in which the IAO (Istituto Agronomico per l’Oltremare, a technical-scientific branch of the Italian Ministry of Foreign Affairs) system of integrated mapping and assessment is briefly explained.

Section III makes up the bulk of the book, with 24 chapters. Each treats land suitability for a specific use. Part a deals with row crops, Part b with small-niche crops, Part c with tree and vine crops, and Part d with forestry and grazing. A welcome feature is the attention given to perennials (ash, walnut, citrus, wine grapes, olives, stone and pome fruits, and kiwi fruit). The section on niche crops (truffles, ash-tree manna, and cactus pear) will have limited applicability but makes fascinating reading. Lentils and emmer wheat are included here, which seems out of place.

These chapters read like a general agronomy text, discussing agronomic characteristics, management (in the Italian context), crop and soil requirements, with references to supporting literature (largely in Italian). Most chapters have simple rating tables, listing soil or agro-ecological characteristics rated from S1 (highly suitable) to N (not suitable) for the use; however some chapters (e.g., 43 pages on wine grape) are purely descriptive; the authors frankly state “a suitability evaluation made with the use of simple tables seemed to be an oversimplification... therefore discussion was favored over schematization”.

It is refreshing to see this interest in land evaluation, and most chapters provide a wealth of information. The editors deserve credit for making this information available in English, thus to the wider public who are not able to experience the pleasure of reading the language of Dante. Unfortunately, the book does not fulfil the promise of its title.

First, most of the information is general and descriptive; this makes it particularly suitable for use as an introduction to land evaluation, which recognized the value of empirical and process models, and the unrealistic results of the matching and limitation approaches. The innovations of De La Rosa (a Mediterranean country) and the Dutch (WOFOST/PS123 simulation modeling group, Bouma’s research chain approach) are briefly mentioned in the first chapter, but the book resolutely out of date. There is even a chapter on the FAO Classification, which was developed for the purposes of farm planning, and has long since been discredited as a means land suitability. The authors ignore quantitative approaches from their own soil science society bulletin (e.g., Bossio and Terlizzi, 2006). Third, in many of the chapters the authors develop an evaluation scheme, rather they discuss the agriculture, not land evaluation.

In summary, the reader who is interested in Italy will find much of interest, especially information on culturg, references to Italian studies, and information on the products. The reader who expects a “manual of methods” is advised to consult Section 5 of the Australian (McKenzie, 2008) or the many excellent articles in the Encyclopedia of Life Support Systems (EOLSS) section on land evaluation (Verheye, 1995).

REFERENCE:


