

Book Review

MANUALS OF FOOD QUALITY CONTROL FAO FOOD & NUTRITION PAPER 14. By P. G. MARTIN. Food and Agriculture Organisation of the United Nations and the Swedish International Development Authority (SIDA). FAO, Rome.

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| Part 1 | Food Control Laboratory | 14/1 | 1979, 69 pp. Paperback £2.20. |
| Part 2 | Additives, Contaminants,
Techniques | 14/2 | 1980, 310 pp. Hard back £7.15. |
| Part 3 | Commodities | 14/3 | 1979, 409 pp. Hard back £9.35. |

This three-part manual is one of a series of FAO publications designed to assist governments of developing countries in establishing and making more effective the control of the quality and safety of the national food supply. Whilst the manual fully succeeds in that intention, it also turns out to be a most useful handbook to anyone in charge of, or working in, a food control laboratory in any country, developed or not. It might be described as a Public Analysts "vade mecum", which is not surprising because the author/editor, Peter Martin, is himself a working Public Analyst.

In his comments on the scope of the manual Peter Martin explains his rationale in the design of the three volumes and some of these are worth quoting directly: "This manual is intended as a practical handbook for use in laboratories performing chemical analysis for food control based on local or national food legislation. . . the book is not directed at the needs of those responsible for quality control work in industry". "Parts II and III give detailed analytical methods and are intended for use at the laboratory bench . . . it should be stressed that only the analyst or his supervisor can decide which tests to do on a particular sample". He also makes a comment with which every analyst will agree but which cannot be emphasised enough: "**Analytical chemistry is an exact science, very demanding on the manipulative skills of the worker at the bench; there is no substitute for experience**".

Part I—Food Control Laboratory

This volume will be invaluable to anyone who has to undertake the design and setting up of a new food laboratory or the major revision of one. I have been involved in this kind of trauma at least twice during my working life; had we had this volume available to us at the time, it would have been of tremendous assistance to my colleagues and me.

This slim volume deals with organisational structure as well as the physical design of a food control laboratory, even to such details as the type of food control card which has been found satisfactory. There is a chapter dealing exclusively with laboratory safety and a most useful concluding chapter on "Use of the Literature" which contains much source information. Altogether this first part of the manual contains a great deal of hard, practical information based

upon sound common sense and experience. I could think of a lot worse bedside reading for any food analyst.

Part II—Additives, Contaminants, Techniques

This part provides practical working instructions for the determination of preservatives, antioxidants, colours, artificial sweeteners, pesticide residues, extraneous matter and filth. Each section aims to be adequate in itself but comprehensive references are provided for further reading. I was particularly impressed with the treatment of colouring matters where, in addition to detailed methods and instructions, lists of R_f values are provided for colours run in the various solvents by the recommended paper chromatographic technique. Diagrams of the extinction curves are also reproduced.

The final chapter on techniques describes the use of a wide range of analytical techniques ranging from sample weighings to GLC. Much of the contents at first sight, to a working analyst, might seem to be "teaching one's Grandmother to suck eggs". A more detailed reading, however, quickly reveals a valuable store of information combining theory, methods and practical advice which no one would waste his time in reading.

Part III—Commodities

This largest of the three volumes comprising the manual gives detailed methods for the examination of the major commodity groups: Milk and dairy products; sugar and saccharin products; fish; meat and poultry; vegetables and fruits; cereals and cereal products; pulses; oils and fats; beverages—alcoholic and non-alcoholic, and spices. I particularly liked the clear, concise style in which the methods are set out in a uniform format under the headings "Principle, Apparatus, Reagents, Procedure, Calculations, Interpretation".

Comprehensive references are given at the end of each commodity section and brief essays on relevant subjects are interpolated where necessary (for example, on "Mastitis in Milk", "Geographical & Botanical Source of Honey", "Corrosion of Tin Plate" and many others). One of the few critical comments which I must make on the whole work is that some of the references in this part are incomplete. I noticed those on pp. 38 and 39 particularly, where some references do not mention the source. I am quite certain that the author had some administrative "help" in compiling them.

The volume on "Commodities" is rounded off by some reproductions of spices from "Greenish's Anatomical Atlas of Vegetable Powders". This alone will add greatly to its value to students and M.Chem.A. candidates.

To summarise: these three manuals are worthy of a place on the bookshelf of anyone concerned with the laboratory control of food quality, and especially of aspiring food analysts. They are most reasonably priced, probably because they are printed by offset lithography from the original typing instead of by the expensive process of type-setting. The typing and proof reading has been done meticulously and only a few minor typographical errors have slipped through.

If all technical books offered the same value for money as do these manuals, then our book budgets would be far less strained than at present.

F. C. SHENTON