

BOOK REVIEW

QUALITY CONTROL METHODS FOR MEDICINAL PLANT MATERIALS,

World Health Organization, Geneva, Switzerland. vii+115 pp. 1998. Soft cover Sw. fr. 35/-, in developing countries : Sw. fr 24.50 ISBN 92 4 154510 0.

In the present time when herbal therapy is universally accepted as an alternate medicine, a publication exclusively on internationally recognized quality control methods for testing of medicinal plant material is the need of the hour. This publication is a practical manual of modern quality control techniques to establish identity and determine quality of medicinal herbs using various physical and chemical parameters.

The book is presented in twenty two chapters. The first chapter entitled "General Notices" explains abbreviations used in the manual, precision of measurement, calculation of results, temperature range under which the tests are to be performed, presentation of values, solubility, conditions for storage and packing of the plant materials, etc., and forms a prerequisite reading for the tests. Subsequent eighteen chapters dwell on parameters of Powder fineness and sieve size, Sampling procedures, Determination of foreign matter, Macroscopic and microscopic examination (for establishing identity of the material), Thin-layer chromatography (for determining chemical impurities), Determination of - Ash, Extractable matter, Water and volatile matter, Volatile oils, Bitterness value, Haemolytic activity, Tannins, Swelling index, Foaming index, Pesticide residues, Arsenic and heavy metals, Microorganisms and Radioactive contamination. In addition, information on preparation of culture media and suitable strains of microorganisms to-use as tests for the plant materials, and Specifications for adsorbents for use in thin layer chromatography is in the next two chapters. The last chapter on Reagents and Solutions gives a short description, procedure of preparation, specification of concentration and special storage requirement, if any, for each of the reagent, test solutions and volumetric solutions used in testing. These twenty-two chapters are covered in 115 pages.

The quality control methods described in the book are the guidelines for plants in general and not for specific plant species or plant material as described in pharmacopoeial monographs. If specific plant material needs tests that generally are meant for synthetic drugs, reference to the WHO's International pharmacopoeias is suggested.

Usefulness of this Manual lies in its being a practical guide giving procedures step by step for each of the tests, accompanied by explanation wherever there is a deviation from the standard procedure. A case to cite is that of determination of bitterness value where ordinary safe drinking water is recommended as a vehicle for the extraction of plant materials and for mouth-wash instead of usual deionised or demineralised water (page 38). The manual also advises on qualities of a person to evaluate bitterness of test sample. If such detailed guidelines followed meticulously in assessing quality of the plant materials, I am sure, two or more personnel analysing the same sample at different places would arrive at the same analytical values and quality assessment.

With this publication, WHO has achieved its objective to provide the National Laboratories in the developing countries with the international quality control methods in testing of the medicinal plant materials and bring about global harmonization in this field.

This publication being exclusively on quality control methods for plants is a useful desk manual and a must for the laboratories, academic institutions, FDA, herbal industries, and for whoever is conscious of the authenticity and quality of herbal materials. Although the price is reduced for developing countries, it is still high.

Selling agent in India : WHO Regional Office for South-East Asia, World Health House, Indraprasth Estate, Mahatma Gandhi Road, New Delhi-110 002
Tel. 011-331 7804; Fax : 011 331 8607; E/mail : Sundaram@who.ernet.in

Virbala Shah