Database of Medicinal Plants. C. Kameswara Rao. Karnataka State Council for Science and Technology, Government of Karnataka. 2000. 458 pp. Price not mentioned.

Alternate systems of medicine such as Ayurveda, Sidha and Unani are well-documented systems and are based on the use of herbs, apart from metals, minerals, etc. The unrecorded practices of people, largely unknown outside the respective pockets, have been less affected by civilization and form an important part of our country's heritage. If such information were not consolidated, it would be lost forever. This monograph is a contribution in this direction.

Effective utilization of any information requires its systematic evaluation. One of the important reasons that has put our traditional system of medicine in a disadvantageous position is that a lot of unfounded claims have tarnished genuine practices, which have stood the test of time for centuries. A thorough assessment of the efficacy of various formulations and validation of different claims is essential. This monograph is a timely collection of facts on various plants, which have shown medicinal value in different parts of the world. To cover such a wide area in a monograph of 458 pages is a gigantic task and, therefore, the author has taken recourse to giving the source of information rather than summarizing the information itself, except in a few cases and that is why the title of the book *Database of Medicinal Plants*. The author has divided the book into 23 chapters.

The database begins with the description of various systems of medicine such as Ayurveda, Sidha, Unani, Chinese, Tibetan, Naturopathy, Aromatherapy, Homeopathy and Bach's flower remedies. The holistic approach in treatment with indigenous system of medicine has been adopted. The description includes not only the details about the products which are utilized in these therapies, but also the historical background, origin and methods adopted uniquely in each of these systems to evaluate or classify a disease which may be helpful to readers to reinstall their lost faith in alternate and complementary systems of medicine. All sections/chapters are supported by appropriate and up-to-date references,

which could be of help to the readers if they wish to go into details. The author has also included some experimental studies in which medicinal plant products have been used under different conditions.

The chapters on biodiversity and conservation of medicinal plants, their economic value and the chapter on biotechnology in relation to medicinal plants will not only cater to the needs of the researchers, but they will also be helpful to young entrepreneurs interested in marketing of medicinal plants and their products. Valuable information has been compiled in appendices 1 to 40. The monograph includes an exhaustive list of medicinal plants with family names as well as their medicinal values in various disorders. Lengthy tables are given for lectin content in various parts of plants showing agglutination of animal erythrocytes and plant cells. Comparison has also been made with animal erythrocytes and human erythrocytes/sperm cells. Sources for additional information have been given in an organized manner, including internet sites (web pages and e-mail addresses).

The incorporation of developments in the field of biotechnology (cell culture, recombinant DNA technology, polymerase chain reaction, transgenic plants, monoclonal antibodies) should be of benefit to the readers.

An emphasis on the integration of various systems of medicine has also been given with a word of caution regarding the use of right species of plants, since most of the medicines of alternate systems are from plant products that have been described and interpreted from old texts.

Databases are structured and organized formats for the storage and retrieval of large bodies of information. Databases of Indian medicinal plants are urgently needed not only for the interested researchers and clinicians, but also for protection of Intellectual Property Rights. The present monograph will add to the existing list of plant species that might have been left out earlier.

In spite of good effort by the author to collect so much of data for the monograph, it is disappointing to see many mistakes in the book. Apart from frequent spelling mistakes throughout the text, some of the glaring factual mistakes are: Zingiberaceae on p. 308, Sanskrit on

p. 23, etc. For *Allium* spp., both Alliaceae and Liliaceae have been used as family names at different places. Similarly, different common names have been used for the same plant. Text lacks uniformity throughout. While the author needs to be complimented for his effort, but from readers point of view a more carefully edited publication is desired.

The book may be helpful to medical students interested in medicinal plants, people working in the area of medicinal chemistry, practitioners of alternate systems of medicine and conservationists. In conclusion, this publication is a useful contribution in the area of medicinal plants, save the mistakes that have crept in and very little detail that has been given about the plants, but which is compensated by good number of references.

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Biomedical Information Technology. Harold Sackman. Academic Press, 525 B Street, Suite 1900, San Diego, California 92101-4495, USA. 1997. 316 pp.

How often have we read, spoken and written about the apathy towards health care in our country and compared it to what is available in the land of plenty (the United States, to the latter's advantage of course). Harold Sackman who is Professor of Information Systems in the school of business at California State University has written a book on biomedical information technology and the health care system in the US. This book has some interesting tit bits for the cynical Indian reader.

How sophisticated general-purpose techniques such as MRI get promoted; how the hapless patient serves as basic training for live target practice for many uninitiated physicians using sophisticated new medical devices is a telling statement of the predicament of patients in the US. The central theme to this book is that

information technology is only as good as the effective human use to which it is applied and that intelligent and vigilant leadership from management, in a socially responsible organizational culture primarily determines such use.

While giving an overview of the IT industry and the medical–industrial complex, Sackman lauds the practicality of American thinking in making its citizens computer and communication literate. This is cited as a social means to enhanced health care literacy, disease prevention and higher level of wellbeing. The enormous support for home information networks in health care was an offshoot of the American obsession to achieve greater national security in an age of free-floating atomic anxiety and the cost for this was borne by the tax-paying public (Chapter 3). The author presents depressing statistics of the medical–industrial complex which paint a distressing portrait of the prospects of retirement in the richest country in the world, for perhaps most American citizens.

Sackman presents an evolutionary system development life cycle (SDLC) of hospital information systems. While IT hardware, software and networks are major icons in this flow chart, it is the human factor that is the Achilles heel of the overall system. Significantly, the author states that massive evidence indicates that the most sophisticated computer systems and networks are only as good as

the people who build, run and use them. Rather than haphazard training of personnel, he recommends a human-oriented system-training programmes, systematically building and reinforcing more effective individual and team skills and realistic simulations to maximize positive transfer of training to the real world. The patient is an integral and focal part of the overall health care system in general.

A highlight of this book is Sackman's insistence on user participation, leading to marked improvement in information system design. The advantages of such an approach are neatly tabulated. The responses of patients to automated health testing are interesting to read. The use of artificial intelligence pattern recognition in developing commonly used techniques such as CT and MRI are also discussed. Instances of the fatal hazards due to hardware–software–management–operator malfunction with the cognizance of FDA administrators are cited. The author has also chosen to quote some grossly incorrect statements from Gofman on radiation cancer risks (Gofman, J. W., *Radiation and Human Health: A Comprehensive Investigation of the Evidence Relating Low Level Radiation to Cancer and Other Diseases*, Sierra Club Books, San Francisco, 1981). A portion of the book is devoted to health hazards faced by workers in the computer workplace. Academic research on IT is dependent on industry grants and disgracefully low

levels of support are available for crucial bio-social areas of ergonomics, social impacts, biomedical occupational hazards of computer workstations. An interesting bio-social critique of the pharmaceutical medical–industrial complex is provided in Chapter 10. Sackman is particularly critical of the MNC 'robber barons'. The US has generally been the acknowledged world leader in most major thrusts in scientific and applied IT developments, including major biomedical advances, but has it proven itself world leader in dedicating the fruits of IT to the improvement of the human condition? This is the theme of the critique in Part 5.

Medical informatics and health care legal informatics are evolving into major biomedical disciplines in their own right. A study of information services in the US reveals stratification between the information-rich and the information-poor. The author laments the third worldization of the American work force (in terms of job insecurity, poor working conditions, managerial apathy, etc.). This book might serve to enlighten the starry eyed Indian heading for a computer job in the US.

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