

Publications of Centre for Indian Knowledge Systems, No. 30, Gandhi Mandapam Road, Kottupuram, Chennai 600 085, India.



Herbs for Good Health. T. D. Nirmala Devi, S. Armugasamy and K. Vijayalatha. 2005. 12 pp. Price: Rs 35.

This publication describes 20 common Indian herbs along with their photographs that help the reader in their identification. It gives the methods in which these are to be used for a large variety of ailments covering cough and cold, headache, fever, indigestion, constipation, skin diseases, cuts and burns, etc. A useful publication for every household.

Organic Cotton Cultivation. K. Vijayalakshmi *et al.* 2005. 38 pp. Price: Rs 75.

This publication describes the method of cultivation of organic cotton, the export market for which is on the increase. Cotton growers in India are the heaviest consumers of pesticides, which many a times leads to heavy financial losses. This publication gives a detailed description of pests and diseases of cotton along with photographs, and describes the organic methods (without pesticides) of their control. However, use of 'Panchagavya' made of cow dung, urine, milk, curd, ghee, yellow plantain and coconut water for controlling dropping of squares, flowers and young bolls of cotton, has not yet been proved scientifically. With the exception of Panchagavya this publication will be useful to cotton growers.

Organic Paddy Cultivation. K. Vijayalakshmi *et al.* 2004. 101 pp. Price: Rs 125.

A well-written publication describing in detail the cultivation of organic paddy (rice), including the methods of controlling diseases and pests. Photographs of insect pests and diseased plants are excellent and will greatly help the farmers in identifying them.

It also lists traditional varieties of paddy in Tamil Nadu. However, this publication also mentions Panchkavya (or is it Panchgavya) as in organic cotton, which has not been proven scientifically. Although written for Tamil Nadu farmers, rice growers in other parts of India will also find this publication useful.

RAJENDRA PRASAD

C-309 Vardhman Apartments,
Mayur Vihar Ext. Phase 1,
New Delhi 110 091, India
e-mail: rajuma 36@yahoo.com

Handbook of Industrial Crops. V. L. Chopra and K. V. Peter (eds). The Haworth Press Inc, New York. 535 pp.

The principal aim of the editors, two distinguished Agricultural scientists, has been to provide an integrated assessment of the present scenario regarding diverse aspects of productivity of twelve industrial crops, through authoritative information provided by experts of good standing in each of these crops, making this a creditworthy, integrated exercise to provide a consolidated picture of industrial crops. In a meaningful introduction, the editors highlight that the book was launched from the view-point of evolutionary biology and commercial agriculture. As basic information on genetic architecture and evolutionary process relating to these crops is far from adequate, the book lays stress on all aspects of cultivation and trade. The choice of the crops discussed essentially relates to industrial products involving edible oils, beverages, resins, antioxidants, drugs, latex, with reference to crops such as arecanut, coconut, palmyra, tea, coffee, cocoa, cardamom and cinchona. Each of the chapters provides information ranging from such aspects as their origin, distribution and taxonomy to breeding, cytotaxonomy, role of pests and diseases, biotechnology, industrial application and management.

Interesting information on the geographical distribution of the different crops, their state-wise area and productivity, cytogenetics of cultivars, hybridization pro-

grammes for exploiting variability in various germplasm, cropping systems, including mixed cropping, impact of diseases and insect attack, besides research and development organizations related to each of the crops, as well as their future outlook, have been meticulously documented. The current scenario has been involved keeping in view an international outlook in terms of development and marketability. Research and development on some of these crops in various countries have enabled the plantation industry to become increasingly science-based and economically viable, also keeping in mind the impact of globalization, product diversification and development of products meeting consumer quality requirements, enabling R&D institutions such as the Cardamom, Rubber, Coffee and Tea Boards across the globe to gear up to meet future challenges.

Information on the end-products of many of these crops useful in the industry has been provided, such as cashew kernel, a rich source of tannin, of great demand by the leather industry, with 33 different grades of kernels among which 26 are commercially available and exported. Similarly, wattle bark extract with a tannin content of 30–40% is a rapid tanning material. The utilitarian value of cinchona bark in the production of quinine, multiple uses of palmyra, technology improvement of extraction of coconut oil, cardamom oleoresins for flavouring foods, besides the processing technology of other crop products have been provided.

Biotechnological aspects have been adequately discussed having bearing on biosynthetic pathways, such as indole alkaloids in crops such as cinchona, and palmitic and oleic acid synthetic pathways in oil palm, to mention some instances. Molecular tools such as markers have been included, involving techniques such as RFLP and microsatellites to be deployed for the analysis and distribution of genetic diversity, enabling future combination with higher probability of significant improvement, for example, aspects like hybrid seed productivity, *in vitro* propagation and the like. Technological developments relating to crops such as rubber have been discussed, notably the development of latex timber clones aimed at a higher latex and timber yield.

This carefully thought out publication provides interesting information on the utilitarian aspects in respect of their industrial value, their potential application

in biotechnology providing adequate opportunities for the 'generation of opportunities for downstream employment' (M. S. Swaminathan). It is a valuable addition to our literature on crop sciences of significance to many researchers in diverse fields, besides its utility for policy makers, industrialists and investors. The integration of information on diverse aspects of

each of these crops makes the volume a useful compendium and every effort has been taken by the editors to make it as informative as possible, keeping in mind the need for integration of a wide range of disciplines.

No scientist interested in agriculture can afford to overlook this volume for its lucid style and heavy content, and is un-

doubtedly a notable addition to our knowledge of industrial crops.

T. N. ANANTHAKRISHNAN

*'Flat 6' 'Dwaraka',
22 (New 42) Kamdar Nagar,
Nungambakkam,
Chennai 600 034, India*

CURRENT SCIENCE

Special Section: Animal Behaviour

10 October 2005

Guest Editor: Mewa Singh

The animal mind and conservation of species: Knowing what animals know

Douglas K. Candland

Behaviour genetics in the post-genomics era: from genes to behaviour and vice versa

Amitabh Joshi

Zeitgebers (*time cues*) for biological clocks

Vijay Kumar Sharma and M. K. Chandrashekar

Neurobiology and behaviour: A network of connections

Rohini Balakrishnan

Ecology proposes, behaviour disposes: Ecological variability in social organization and male behavioural strategies among wild bonnet macaques

Anindya Sinha, Kakoli Mukhopadhyay, Anirban Datta-Roy and Sunita Ram

Integrating proximate and ultimate causation: Just one more go!

B. Thierry

Role of parasites and commensals in shaping host behaviour

Maithili Jog and Milind Watve

Variation in male mating behaviour within ungulate populations: patterns and processes

Kavita Isvaran

Social and reproductive behaviour in elephants

T. N. C. Vidya and R. Sukumar

Midnight's children?: Solitary primates and gregarious chiropterans

Sindhu Radhakrishna

Managing primates in zoos: Lessons from animal behaviour

Avanti Mallapur

Mate choice and its implications for conservation and management

Suhel Quader

Behavioural studies: A necessity for wildlife management

Mewa Singh and Werner Kaumanns