BOOK REVIEW

Foundations of Ethnobotany: 21st Century Perspective

Dr. Prabha Y Bhogaonkar (Book Reviewer)
Professor in Botany (Rtd.), Govt. Vidarbha Institute of Science and Humanities, Amravati. (MS, INDIA)

Corresponding Author: ybprabha@gmail.com

The book presents a very different type of information that deals with development of agriculture in various civilizations world over. Foreword for the book is written by Hon. Dr. S. K. Jain. Over the period voluminous data has been accumulated regarding uses of plant species by tribals and rural folk across the country. However, ethnobotanical living has almost deteriorated in our lives. In preface author emphasizes the need to look beyond ‘Hershberger’s ethnobotany’. According to him 99% of Indian Ethnobotany is Economic Botany and not Ethnobotany. In fact, it is not economic but utilitarian botany. Importance of ethnobotany is put very lucidly by author through a Chinese story; the moral derived is that, “Ecology has been the official wife of human society, that failed to protect the environment and Ethnobotany – a concubine – alone can take care of environment”. In introductory chapter, five thoughts are enumerated, which are guiding principles of the content of the book. Contents of the book are presented in five parts.

PART-1

It gives biographical data of J. W. Harshbergar and R. I. Ford; along with exhaustive list of their publications.

Seven centers of origin of cultivated plants are enlisted for further discussion. To emphasize “Beyond Hershberger” author has given short account of history of Human as race from two million years ago (a fossil found near Chandigarh) to the time of Mughal Empire. Main focus is of course on Indian subcontinent.
PART- II

This chapter deals with early agriculture in different parts of the world. Seven societies are considered as initiators of agriculture that originated 12000 and 5000 years ago. These are 1. Fertile Crescent (10000 BP*), 2. Yangtze and Yellow River basins (9000 BP), 3. New Guinea Highlands (9000-6000 BP), 4. Central Mexico (5000-4000 BP), 5. S. America (5000-4000 BP), 6. Sub-Saharan Africa (5000-4000 BP), and 7. Eastern USA (4000-3000 BP). Agricultural revolution was also called Neolithic revolution. There are many theories that discuss why populations were driven to take up agriculture. Six important theories in this context are discussed. Domestication of different plant species in different centers is nicely discussed. It obvious that development of agriculture needs help of animals and thus naturally domestication of animals follows. Change from nomadic to sedentary life brings some unknown diseases which we today call ‘life style diseases’. These points are also discussed. Important is passing reference of ‘Archeogenetics’ i.e. the distribution of human genetic markers. Throughout the text the reference is mentioned along with the statement. Also, separate list of references is given at the end of the chapter.

PART- III

This forms major part of the book. It describes the history of in Indian subcontinent in view of different crops and archeological sites. It covers the time span from 17000 – 7000 BC (Mesolithic to Neolithic rice harvest found at Chopani Mando) up to birth of Republic India and onwards. This part is further subdivided into eleven parts with list of references at the end of each part. Cultivation of Wheat, Barley and Chickpea are found around 7th Century BC in Mehargarh region. An exhaustive list of hexaploid, tetraploid and diploid wheat species subspecies and varieties and the world regions of their cultivation is given in Mt Carmel region wild wheat and barley still grows. Cotton cultivation is 7000 years old in old world. Spun cotton is known to Indians since 3000 BC. Very interesting is the misconception by John Mandeville (1350 AD) that small lambs grow on branches of cotton tree that yield fine wool. The story is given along with the picture of imaginary cotton tree. Many other cultivations – including fruit plants- along with related religious stories, myths and beliefs and famous spice trade are described.

Agricultural technology in India is reviewed from 9000 BC. Food – Economy of Pre-Harappan period is given with different archeological sites for different crops. Aurangabad in Maharashtra is given as one of the sites. In fact it is not Aurangabad but Daynabad (Harappan culture) and Sangamner (Jorwe culture) of Ahmadnagar dist. of Maharashtra. Famous ancient literature like Rigveda, Yajurveda, Mahabharata and Kautilya’s Arthashastra are also referred. Influence of other cultures on food economy up to AD 1000 is discussed. In fact this part is very interesting. Agricultural tools, deities related to agriculture, mention of different seeds from Rigveda are given in details. How can one forget ‘Soma’? A hymn from Rigveda describing preparation of ‘Soma’ is cited nicely translated. Account of ancient Indian food and influence of other cultures, introduction of potato and crystallized sugar. Irrigation systems were also quite sophisticated. Kallani dam on Kaveri River which is one of the oldest water regulating structure of the world still working. There was well developed system of canals. World history of Agriculture narrated is well illustrated with pictures taken from various sources. Important crops like cotton, potato and rice are discussed in details.

PART- IV

Lists various civilizations of Bronze Age, Iron Age and Medieval to Early Modern Age. Causes of fall of civilizations are discussed. According to author major reasons for collapse of civilizations were: Environmental damage (e.g. deforestation, soil erosion), Climate change, Dependence on long distance trade and societal responses to internal and environmental problems. There is short but interesting history of American civilizations and fall of civilizations; their methods of agriculture and crops. Brief passing reference of European civilizations is also there. About 90 tribes are noted, which can be called ‘Uncontacted’ tribes.

The book tries to picture a very big canvas encompassing civilizations of entire world starting from 10,000 BP (for time scale most accepted terms BP and AD should have been used uniformly since, term BP is used usually in geological contexts only). Different cultural periods of India are considered but there is no mention of scheduled tribes. In introductory part only, author says that “we need to look beyond Hershberger”, but following discussion no-where tells how? It is high time now that we should extend our study to application of knowledge. Author writes few words about intellectual rights of tribals, but nowhere says that the documented information should be supported by experimental validation; because only after that we can proceed for patent right. Smaller font used in print creates some difficulty in reading.

The book is written in very lucid language, information is vast and nicely illustrated. It is useful not only to the scholars of ethno botany but more so to the students of Agriculture. It is an important book presenting the ancient history of world agriculture.

Note: *BP* indicates ‘Before Present’ i.e. Before 1950.

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