

## **History of agricultural development in the world and India. Agriculture heritage – Agriculture in ancient India**

### **History of agricultural development in the world and India**

Please refer Lecture 1 theory notes.

#### **Agriculture heritage**

**History** is the continuous record of past events

**Heritage** is the inherited values carried from one generation to other generation

**Agricultural heritage** refers to the values and traditional practices adopted in ancient India which are more relevant for present day system.

#### **Agriculture Heritage in India**

Agriculture in India is not of recent origin, but has a long history dating back to Neolithic age of 7500-6500 B.C. It changed the life style of early man from 'nomadic hunter of wild berries and roots' to 'cultivator of land'. Agriculture is benefited from the wisdom and teachings of great saints. The wisdom gained and practices adopted have been passed down through generations. The traditional farmers have developed the nature friendly farming systems and practices such as mixed farming, mixed cropping, crop rotation etc. The great epics of ancient India convey the depth of knowledge possessed by the older generations of the farmers of India. The modern society has lost sight of the importance of the traditional knowledge which had been subjected to a process of refinement through generations of experience. The ecological considerations shown by the traditional farmers in their farming activities are now-a-days is reflected in the resurgence of organic agriculture.

The available ancient literature includes the four Vedas (rig, yajur, sama, atharvana), nineteen Brahmanas (A total of 19 Brahmanas are extant at least in their entirety: two associated with the Rigveda, six with the Yajurveda, ten with the Samaveda and one with the Atharvaveda.), Aranyakas, Sutra literature, Susruta Samhita, Charaka Samhita, Upanishads, the epics Ramayana and Mahabharata, Puranas (20), Buddhist and Jain literature, and texts such as Krishi-Parashara, Kautilya's Arthashastra, Panini's Ashtadhyayi, Sangam literature of Tamils, Manusmirti (laws), Varahamihira's Brihat Samhita (maths & astrology), Amarkosha, Kashyapiya-Krishisukti and Surapala's Vriskshayurveda. This literature was most likely to have been composed between 6000

BC to 1000 AD. The information related to the biodiversity and agriculture (including animal husbandry) are available in these texts.

Rigveda is the most ancient literary work of India. It believed that Gods were the foremost among agriculturists. According to Amarakosha (a thesaurus of Sanskrit written by the Jain or Buddhist scholar Amarasimha), Aryans were agriculturists. Manu and Kautilya prescribed agriculture, cattle rearing and commerce as essential subjects, which the king must learn. According to Patanjali (compiler of the Yoga Sūtras) the economy of the country depended on agriculture and cattle-breeding. Plenty of information is available in 'Puranas', which reveals that ancient Indians had intimate knowledge on all agricultural operations. Some of the well known ancient classics of India are namely, Kautilya's 'Arthashastra'; Panini's 'Astadhyayi'; Patanjali's 'Mahabhasya'; Varahamihira's 'Brahat Samhita'; Amarsimha's 'Amarkosha' and Encyclopaedic works of Manasollasa. These classics testify the knowledge and wisdom of the people of ancient period. Technical books dealing exclusively with agriculture were Sage Parashara's 'Krishiparashara' in 1000 A.D. Other important texts are Agni Purana and Krishi Sukti attributed to Kashyap (500 A.D.). Ancient Tamil and Kannada works contain lot of useful information on agriculture in ancient India. Agriculture in India made tremendous progress in the rearing of sheep and goats, cows and buffaloes, trees and shrubs, spices and condiments, food and non-food crops, fruits and vegetables and developed nature friendly farming practices. These practices had social and religious undertones and became the way of life for the people. Domestic rites and festivals often synchronised with the four main agricultural operations of ploughing, sowing, reaping and harvesting.

In the Rigveda, there is reference to hundreds and thousands of cows; to horses yoked to chariots; to race courses where chariot races were held; to camels yoked to the chariots; to sheep and goats offered as sacrificial victims, and to the use of wool for clothing. The famous Cow Sukta indicates that the cow had already become the very basis of rural economy. In another Sukta, she is defined as the mother of the Vasus, the Rudras and the Adityas, as also the pivot of Immortality. The Vedic Aryans appear to have large forests at their disposal for securing timber, and plants and herbs for medicinal purposes appear to have been reared by the physicians of the age, as appears in the Atharva Veda. The farmers' vocation was held in high regard, though agriculture solely

depended upon the favours of Parjanya, the god of rain. His thunders are described as food-bringing.

The four Vedas mention more than 75 plant species, Satapatha Brahmana mentions over 25 species, and Charaka Samhita (300 BC) an Ayurvedic (Indian medicine) treatise-mentions more than 320 plants. Susruta (400 BC) records over 750 medicinal plant species. The oldest book, Rigveda (4000 BC) mentions a large number of poisonous and non poisonous aquatic and terrestrial, and domestic and wild creatures and animals. Puranas mention about 500 species of plants. The science of arbori-horticulture had developed well and has been documented in Surapala's Vrikshayurveda. Forests were very important in ancient times. From the age of Vedas, protection of forests was emphasized for ecological balance. Kautilya in his Artha Sastra (321-296 BC) mentions that superintendent of forests had to collect forest produce through the forest guards. He provides a long list of trees, varieties, of bamboos, creepers, fibrous plants, drugs and poisons, skins of various animals, etc., that come under the purview of this officer.

The preservation of wild animals was encouraged and hunting as a sport was regarded as detrimental to proper development of the character and personality of the ruler, according to Manu (Manusmriti, 2nd Century BC). Specifically, in the Puranas (300-750 AD) the names of Shalihotra on horses and Palakapya on elephants have been found as experts in animal husbandry. For instance, Garudapurana is a text dealing with treatment of animal disorders while the classical work on the treatment of horses is Aswashastra. One chapter in Agnipurana deals with the treatment of livestock and another on treatment of trees.