



# Agriculture in Ancient India

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**Abstract :** The beginning of Ancient Indian agriculture can be traced back to the vedic times. Agriculture was considered an appropriate subject because its base or starting points could be traced back into Vedic literature. It can easily be demonstrated that this literature, admittedly, the oldest in the world, supplied a number of seminal ideas for later elaboration and expansion of theories.

**Keywords :** Krishivijnan, Vedic Agriculture, Sustainable Farming.

**Introduction :** Ancient Indian agriculture was a sophisticated and sustainable system rooted in ecological harmony and social organization. Through archaeological evidence and textual references—from the R̥gveda to the Arthashastra - we glimpse a civilization that revered the land and innovated to thrive upon it.

In ancient India cultivation was considered a holy act, like the performance of yajña. A Rigvedic hymn figuratively declares that a sacrifice is of the nature of ploughing, sowing and reaping. The agriculture pursuits were held high in esteem and the dice-players were condemned and advised to take up to the honourable job of cultivation.

In the Atharva-veda Pṛthuvainya is mentioned as the originator of ploughing. Asvins in the Rigveda are eulogised to be the gods responsible for sowing of the grains by means of the plough.

Regarding the implements used for agricultural operations, the plough-share is frequently mentioned in the Rig-veda and in the Samhitās. This is indicated by the word phāla and the mere plough is popularly known as lāṅgala as lance-pointed (pavīravam), well-lying (auśīnam) and having well-smoothed handle (kṣaru). The same plough, large and heavy, was known as Sīra which was drawn oxen in the fields.

**Some important texts on Krishisastra in Sanskrit :**

1. कृषिपराशरः
2. कृषिविषयकः
3. कृषिशासनम्
4. कृषिसमयनिर्णयः
5. काश्यपीयकृषिसूक्तिः

Besides works in Sanskrit, agricultural works were also composed in many regional languages :

1. कृषिपाटु (Malayalam)
2. खनार् – बचन् (Bengali)
3. ऐलुपतु (Tamil)

#### 4. कृषिगीता (Malayalam)

The details of the text Kṛṣiparāśara, an important text of Krishishastra is given below :

**Kṛṣiparāśara** : The text belongs to 11<sup>th</sup> C.A.D. and probably belongs to a north-eastern Indian provenance. It is indicated by some desi words such as madikā/mayikā- "a kind of harrow", paccanī- "goad" which can be connected with Bengali mai- "a ladder - shaped contrivance used for leveling rice fields" and pāñcan - bāṛi respectively etc.

The text contains 243 verses. The language of the book is simple and is very easy and affords a pleasant reading; The contents of the treatise can be summarized as follows.

It begins with the praise of agriculture. Since agriculture depends on rainfall a great part is devoted to climatology. These passages stand very near to those in the collection of popular sayings in vernaculars and to those in Sanskrit text on weather - forecast. The next are the rules regulating the treatment of cattle with special emphasis on their role in ploughing. A short instruction concerning manuring forms the next part. It is followed by a very detailed description of the plough. Prescriptions on the commencement and carrying out of ploughing are dealt with at considerable length. There is enough room for omens and portents connected with this business.

The subsequent verses provide detailed instructions on the seeds, sowing, the operations afterwards such as harrowing, transplantation of paddy seedlings, weeding, release of water from the paddy field and magical protection of the seedling from insects and pests which cause harm to crops. Before harvest there is some minor work to be done, such as fixing nala (lit. reed) in the field in order to avert evils to paddy or simply to scare away mischievous birds, testing the crop by taking a handful of samples and fixing a pole (medhiropaṇa) for threshing or for magical purposes. The whole process of cultivation and accordingly the prescriptions of our treatise end with the narrating of the harvest and the connected festival called puṣyayātrā, when the grains of paddy are weighed and stored. The last thing to be done is the Lakṣmīpūjā, the worship of the Goddess of wealth and fortune.

**Kṛṣisamayānirṇaya** :

The authorship and date of composition of this work is not known. On the ground of the existing long tradition of natural astronomy in Kerala it may be concluded that it was written before the 18th century. The work is of an encyclopedic character. It deals with agriculture, animal husbandry, climatology and topics pertaining to village life, such as house building.

The treatise contains seven chapters. The details are as follows -

1. The method of agriculture.
2. The method of sowing seeds.
3. The use of the polar star in fixing times for work
4. The constellations causing diseases to begin
5. The constellations [suitable] for the medical attendance of diseases.
6. The methods of protecting crops.
7. The methods of setting up the pillar and the wall at the commencement of [building] a house [and] the strengthening (stambhādi?) of the horses, oxen and men and the like.

### **Practical Wisdom of Ancient Indian Sages :**

To illustrate the wisdom of ancient Indians some examples are being mentioned hereunder :

1. The trees bear abundant fruits and flowers quickly if watered with the mixture of marrow of stag and hog honey, ghee, and tender leaves of nicula. (Vrikshayurveda of Surapala - 118)
2. Trees which are smoked heavily by a mixture of ghee, bidanga, milk-water, and honey become full of flowers and fruits in a short time. (V.A.S - 119)
3. "For the (growth of) old Amalaka trees the pulse masha is extremely beneficial; for young Tinduka trees application of water and milk is very helpful; powders of barley help the growth of coconut trees; and all trees rapidly grow if in the planes." (Sarangadhara Paddhati.149)
4. For the Benefit For disease free plants with abundant fruits, fumigate trees with mixture of Vidanga, Indian bdellium, fish meat, of People turmeric, mustard and arjun flowers [verse 12 of Lokopakara text]
5. For good sprouting and growth apply decoction of ground Indian dill leaves or sprinkle goat meat juice [verse 14]
6. For glossy and attractive trees full of leaves, flower and fruits throughout the year apply solution made by cooking barley, green gram and black gram in goat's milk [verse 15 -16]
7. For attractive trees and quick sprouting of leaves, flowers and fruits, apply regularly mixture of deer meat, pork, ankola seed powder, ghee and honey [verse 19]

**Some methods of pesticide/pest-repellent preparation and application :** All kinds of worms are destroyed if one applies to the roots of trees the barks of Karañja, Aragvada, Arishta, Saptaparṇa-pasted in the urine of cows together with Vidanga and Musta. (Sarangadhara Paddhati .184)

1. To remove insects both from the roots and branches of the trees, wise men should water the trees with cold water for seven days. (V.A.S - 193)
2. The worms can be overcome by the paste of milk, kunapa water, and cow dung mixed with water and also by smearing the roots with the mixture of white mustard, vaca, kusta, and ativisa. (V.A.S - 194)
3. The worms accumulated on trees can be treated quickly by smoking the tree with the mixture of white mustard, ramatha, vidanga, vaca, usana, and water mixed with beef, horn of a buffalo, flesh of a pigeon, and the powder of bhillata (bhallataka ?)- (V.A.S -195)

### **Treatment of Seeds and their plantation**

1. Seed is extracted from dried fruits which become ripe in the natural course and season. It is then sprinkled with milk and dried for five days. It is then smoked with mustard seed mixed with bidanga. (V.A.S. 52)
2. Seeds sprinkled with milk, smeared with mustard and ash of sesame and hati, rubbed with cow dung and smoked with marrow sprout in no time. (V.A.S. 53)
3. Seeds sprinkled with milk, rubbed with cow dung dried and profusely smeared with maksika (honey) and bidanga definitely sprout. (V.A.S. 54)
4. According to the experts, seeds soaked in milk, dried well in shade, and rolled into powder of brati, tila, and mala (hollow stalk of lotus) mixed with mustard are also excellent for sowing. (V.A.S. 55)

5. The seeds of makanda, jambre, and panasa are excellent when wet and treated as stated above. The seeds of ksirika and bakula are good when dried and treated as stated above and when the tips are cut (or bent). (V.A.S. 56)

**Conclusion :** The above are some excerpts from traditional texts on agriculture. There is a necessity to study these ideas and concepts from scientific point of view for their validation in modern times.

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