GYANBODH
An International Multidisciplinary Peer Reviewed Journal
ISSN:3048-9792
Volume: 3
Issue: 3
May - June: 2026

History of Agriculture in Early India: Insights from the *Kṛṣhiparāśara*

Saroj Kumari
Research Scholar (Ph.D.)
Department of History
Himachal Pradesh University, Shimla, Gmail: sarojbharti457@gmail.com
Dr. Sharda Verma
Assistant Professor (History)
CDOE, H.P. University, Shimla-5, Gmail: sharda74verma@gmail.com

Abstract

Agriculture has constituted the foundation of Indian civilization since ancient times. One of the earliest extant agricultural treatises is the *Kṛṣhiparāśara*, traditionally attributed to the sage Parāśara. The text provides systematic guidance on a wide range of agricultural practices; including weather forecasting, soil preparation, and crop cultivation, irrigation system, and livestock management.

This study examines the agricultural knowledge embedded in the *Kṛṣhiparāśara* from a historical perspective and evaluates its significance in the evolution of agronomic practices in early India. Through textual analysis and comparison with subsequent developments in agricultural science, the paper highlights the empirical observations and ecological awareness inherent in early Indian farming traditions. The findings indicate that several practices described in the text—such as crop rotation, rainfall prediction, and natural pest control—demonstrate continuity with principles associated with sustainable agriculture in the modern context.

Keywords: Soil management; sustainability; ecology; farming tradition; crop rotation; pest control; agronomic

Introduction

The *Kṛṣhiparāśara* is among the few Sanskrit texts devoted exclusively to agriculture and serves as a significant source for understanding early Indian agrarian practices. In ancient India, agriculture was not merely an economic activity but was deeply embedded within cultural traditions and ecological rhythms.

GYANBODH
An International Multidisciplinary Peer Reviewed Journal
ISSN:3048-9792
Volume: 3
Issue: 3
May - June: 2026

Among classical Sanskrit works on agriculture, the *Kṛṣhiparāśara* occupies a distinctive position as one of the earliest systematic manuals on farming. Traditionally attributed to the sage Parāśara, the text is generally placed within the early medieval period and comprises approximately 243 verses describing agricultural life and rural organization.

The primary aim of the text is practical: it seeks to guide cultivators in enhancing productivity. Its opening verses emphasize that it was composed for the welfare of farmers, highlighting the central role of agriculture in sustaining social and economic stability. The treatise addresses rainfall prediction, agricultural implements, cultivation techniques, cattle management, harvesting, and storage. It also incorporates astronomical and meteorological observations to assist farmers in planning agricultural activities.

From a historical perspective, the *Kṛṣhiparāśara* provides crucial evidence for the development of agricultural knowledge in early India, reflecting a synthesis of empirical observation, environmental awareness, and ritual practice.

Methodology

The present study adopts a qualitative textual approach to analyze the agricultural knowledge presented in the *Kṛṣhiparāśara*. The methodology includes:

- Critical examination of translated texts and secondary literature
- Identification of key agrarian themes such as rainfall prediction, soil preparation, and crop management
- Comparative evaluation with later developments in agricultural science

This approach enables a systematic understanding of the principles underlying early Indian agricultural practices.

Historical Context of Composition

The *Kṛṣhiparāśara* does not provide explicit internal evidence regarding its date of composition. However, references in later works offer important clues. The sixteenth-century scholar Raghunandana, in his *Jyotiṣa-Tattva*, mentions earlier authorities such as the *Rājamārtaṇḍa* and Varāhamihira.

Since King Bhoja, associated with the *Rājamārtaṇḍa*, is generally placed in the eleventh century CE, and Varāhamihira in the fifth–sixth century CE, scholars suggest that the

GYANBODH
An International Multidisciplinary Peer Reviewed Journal
ISSN:3048-9792
Volume: 3
Issue: 3
May - June: 2026

Kṛṣhiparāśara may have been composed between the eleventh and early sixteenth centuries CE[1].

Linguistic evidence further supports an eastern Indian origin. Several terms in the text resemble Bengali vocabulary, indicating familiarity with agrarian conditions in regions such as Bihar and Bengal[2].

Significance in Agrarian History

The *Kṛṣhiparāśara* represents a crucial stage in the historical development of Indian agriculture, wherein empirical knowledge was systematically codified. The text emphasizes agriculture as the basis of life (*jantūnāṃ jīvanaṃ kṛṣi*), underscoring the dependence of society on food production.

It highlights staple crops such as rice (*dhānya*) as central to sustenance and social stability. The integration of environmental observation with agricultural practice demonstrates an advanced understanding of ecological processes.

From a historical standpoint, the text illustrates the convergence of practical experience, environmental awareness, and ritual belief in shaping early Indian agrarian systems.

Importance of Agriculture

The *Kṛṣhiparāśara* underscores the indispensable role of agriculture in sustaining human life. It observes that even a learned *Brāhmaṇa* may be reduced to poverty without access to food, emphasizing the primacy of agricultural production.

Agriculture is described as the foundation of existence (*jantūnāṃ jīvanaṃ kṛṣi*)[3]. Food grains, especially rice, are identified as the primary source of nourishment (*annaṃ hi dhānya-saṃjātam*), and food itself is regarded as essential for fulfilling all human needs (*annaṃ sarvārtham*).

The text further asserts that wealth and knowledge cannot substitute for food, highlighting the agrarian basis of early Indian society. Farming is presented as a dignified occupation, and farmers are recognized as vital contributors to economic and social stability.

Roles of Farmers

---

[1]Lallanji Gopal, *Aspects of the History of Agriculture in Ancient India* (Varanasi: Bharti Prakashan, 1960), 30.

[2]Lallanji Gopal, *The Economic Life of Northern India, c. A.D. 700–1200* (Delhi: Motilal Banarsidass, 1989), 301.

[3]*Kṛṣhiparāśara*, verse 8.

GYANBODH
An International Multidisciplinary Peer Reviewed Journal
ISSN:3048-9792
Volume: 3
Issue: 3
May - June: 2026

The *Kṛṣhiparāśara* assigns a central role to the farmer in determining agricultural success. It emphasizes that negligence or lack of vigilance can quickly result in crop failure (*kṣaṇenaikena sīdanti muhūrtam-anavekṣaṇāt*, Verse 91).

A farmer equipped with adequate resources, skill, and discipline is more likely to achieve successful outcomes, whereas poorly managed agricultural ventures often lead to economic hardship. The text highlights the importance of both material preparedness and personal competence in farming.

An ideal farmer is expected to possess qualities such as attentiveness, diligence, and resourcefulness. He should care for cattle (*gohitaḥ*), regularly attend to agricultural work (*kṣetra-gāmī*), remain industrious (*vitandraḥ*), and possess knowledge of seasons (*kālajña*) and crops (*sarva-śasyādyaḥ*).

Agricultural success is thus linked to discipline and knowledge, and those who embody these qualities are assured prosperity (*na avasīdati*)[4].

Forecast of Good Rainfall

Rainfall prediction occupies a significant place in the *Kṛṣhiparāśara*, reflecting the dependence of agriculture on monsoon patterns. The text identifies natural and astronomical indicators that signal favourable rainfall and agricultural abundance.

It suggests that early Indian scholars developed methods to predict rainfall on multiple temporal scales and associated precipitation patterns with planetary positions. Celestial bodies were assigned symbolic roles such as “king” or “minister,” indicating the integration of astronomy into agricultural planning.

The text further emphasizes that agriculture is fundamentally dependent on rainfall (*vṛtti-mūla-kṛṣiḥ sarvā*). Knowledge of such predictions was largely preserved by *Brāhmaṇas*, upon whom the wider population relied[5].

[4]Lallanji Gopal and V. C. Srivastav, *History of Agriculture in India (Up to c. 1200 A.D.)*(New Delhi: Concept Publishing Company, 2008), 514.
[5]G. C. Chauhan, *Economic History of Early Medieval Northern India* (New Delhi: Atlantic Publishers & Distributors, 2003), 88.

GYANBODH
An International Multidisciplinary Peer Reviewed Journal
ISSN:3048-9792
Volume: 3
Issue: 3
May - June: 2026

Clouds are classified into four types—Āvarta, Saṃvarta, Puṣkara, and Droṇa—each associated with specific rainfall outcomes[6]. In addition, empirical indicators such as lunar dates, seasonal winds, and constellations are used to forecast rainfall.

These observations demonstrate an early attempt to correlate environmental and celestial patterns with agricultural productivity are mentioned, including:

1. Rainfall accompanied by cloudy skies on the seventh day of the bright fortnight of Māgha.
2. The occurrence of strong winds or hailstorms on specific days, such as:
    - The seventh day of the dark fortnight of Māgha and Phālguna,
    - The third day of the bright fortnight of Caitra,
    - The first day of Vaiśākha.
3. When the first day of the bright fortnight of Caitra falls on a Wednesday, Thursday, or Friday.
4. Rainfall occurring under the lunar constellations *Citrā*, *Svāti*, and *Viśākha* during the months of Jyeṣṭha and Śrāvaṇa.
5. The occurrence of easterly winds during the full moon of Āṣāḍha[7] .
6. The presence of northerly winds on the full moon of Āṣāḍha (Verse 59).
7. The blowing of northeastern winds during the same full-moon period of Āṣāḍha.
8. Rainfall on the ninth day of the bright fortnight of Āṣāḍha (Verse 60).
9. Rainfall in the Rohiṇī constellation during the month of Śrāvaṇa (Verse 62).

These indicators demonstrate that rainfall prediction constitutes a major focus of the Kṛṣhiparāśara, highlighting the crucial role of meteorological observation in ancient agricultural planning and decision-making.

Indications of Drought

The *Kṛṣhiparāśara* also identifies several signs believed to indicate the likelihood of drought. These indicators are primarily based on astronomical and calendrical observations, reflecting the perceived relationship between celestial phenomena and climatic conditions.

Key indicators include:

[6]PushpaNiyogi, *Agrarian and Fiscal Economy of Eastern India* (Calcutta: Firma KLM, 1979), 119.
[7]Gopal and Srivastav, *History of Agriculture in India*, 513.

GYANBODH
An International Multidisciplinary Peer Reviewed Journal
ISSN:3048-9792
Volume: 3
Issue: 3
May - June: 2026

- The occurrence of the first day of the bright fortnight of Caitra on a Saturday (Verse 45)
- Absence of rainfall during the Rohiṇī constellation in Śrāvaṇa (*karkate rohiṇī kakṣe yadi vṛṣṭir na jāyate*, Verse 63)
- The transit of Mars through specific constellations such as Uttara Phālgunī and Jyeṣṭhā (Verse 75)
- The positioning of the Sun behind Mars (*kuja-pṛṣṭha-gato bhānuḥ*, Verse 76)
- Conjunction of Mars with the Sun (*sa eva ravinā yuktaḥ*, Verse 77)
- Presence of Mars in Leo (*aṅgārako yadā siṃha*, Verse 65)

These observations illustrate how early agricultural communities relied on celestial patterns to anticipate adverse climatic conditions such as drought.

Soil Preparation and Land Classification

The *Kṛṣiparāśara* emphasizes soil preparation as a fundamental prerequisite for cultivation. It outlines methods for identifying fertile land and classifying soil based on texture, moisture retention, and productivity.

The text highlights essential preparatory processes such as ploughing and levelling fields, which were considered necessary for improving soil structure and ensuring effective seed germination. These practices demonstrate the empirical knowledge developed by early Indian farmers.

Agricultural Tools and Implements

The text provides detailed information on agricultural implements, reflecting the technological sophistication of early Indian farming systems. These include:

- *Madikā* – a ladder-like implement used for levelling rice fields both before and after sowing.
- *Viddhaka* – a spiked hoe employed for loosening soil and making furrows.
- *Kodāla* – a spade used for handling manure and breaking soil clumps.
- *Khanitra* – a harrow used to remove weeds and small stones from the field.
- *Medhi* – a threshing post made from specific types of wood.
- *Sṛṇi* – sickles of various shapes used for harvesting crops.
- *Cālanī* – a container used for sifting grains.
- *Dhānyakṛt* – a winnowing fan for separating grain from chaff.

GYANBODH
An International Multidisciplinary Peer Reviewed Journal
ISSN:3048-9792
Volume: 3
Issue: 3
May - June: 2026

- *Sūrpa* – a winnowing basket.

These implements illustrate the practical and efficient agricultural technology employed in ancient farming systems, demonstrating a well-developed understanding of cultivation processes and tools[8] .

The Plough

The plough is described as a central implement in the *Kṛṣhiparāśara*, particularly in rice cultivation. It is composed of several components, including:

(i) *Īṣā* – the main beam of the plough

(ii) *Yuga* – the yoke

(iii) *Niryola* – the shoe and main body of the plough

(iv) *Halasthāṇu* – the handle or the wooden part attached to the *niryola*, positioned near the ploughshare

(v) *Phālaka* – the ploughshare

(vi) *Pāśikās* – iron fittings used to secure the ploughshare to the shoe

(vii) *Addacalla* – the yoke-pins to which the bulls are fastened

(viii) *Śula* – an additional wooden piece that firmly connects the body to the beam

(ix) *Paccānī* – a goad used to control and drive the bulls

(x) *Yotra* – the rope used to tie the bull to the yoke

(xi) *Avaddha* – the iron joint connecting the plough body to the beam

This detailed description reflects the technical sophistication of traditional agricultural implements and the importance of the plough in ancient farming practices.

Crop Cultivation and Seed Management

The Kṛṣhiparāśara offers a systematic account of crop cultivation, outlining the entire agricultural cycle. The text includes detailed guidance on:

- selection of seeds (Verses 157–167)
- sowing (Verses 168–182)
- transplantation (Verses 183–185)
- irrigation practices
- removal of weeds (Verses 189–192)

[8]Gopal and Srivastav, *History of Agriculture in India*, 518.

GYANBODH
An International Multidisciplinary Peer Reviewed Journal
ISSN:3048-9792
Volume: 3
Issue: 3
May - June: 2026

- harvesting methods (Verses 206–213)

These stages demonstrate that ancient farmers followed a well-structured and organized approach to crop management. Particular emphasis is placed on the selection of healthy and high-quality seeds, which is considered essential for obtaining good yields.

Irrigation and Water Management

Water management constitutes a crucial component of agricultural practice in the *Kṛṣhiparāśara*. The text describes various irrigation techniques adapted to different environmental conditions.

It refers to methods such as canal irrigation, storage of water, and rainwater conservation, all aimed at maintaining adequate soil moisture. From a historical perspective, these practices demonstrate a sophisticated understanding of water resource management and its central role in sustaining agricultural productivity.

Pest and Disease Control

The *Kṛṣhiparāśara* also addresses the protection of crops from pests and diseases. It recommends natural and preventive methods, including the use of plant-based substances and ecological techniques.

These practices reflect an early form of sustainable agriculture, emphasizing harmony with nature and avoiding harmful chemical interventions. Such approaches indicate a developed awareness of ecological balance within agricultural systems.

Agricultural Crops

The *Kṛṣhiparāśara* identifies three principal crops—sesame (*tila*), paddy (*dhānya*), and barley (*yava*). Although this list is more limited than those found in other classical texts such as the *Arthaśāstra*, or the *Kāśyapīya Kṛṣisūkta*, it nevertheless reflects the agricultural priorities of the period[9] .

The text frequently refers to rice cultivation, underscoring its importance as the staple crop in the agrarian economy of early India. However, it does not distinguish between specific varieties, suggesting a generalized emphasis on subsistence production.

[9]Gopal and Srivastav, *History of Agriculture in India*, 522.

GYANBODH
An International Multidisciplinary Peer Reviewed Journal
ISSN:3048-9792
Volume: 3
Issue: 3
May - June: 2026

Use of Cattle Manure

The *Kṛṣhiparāśara* emphasizes the importance of cattle manure in maintaining soil fertility and promoting crop growth. It notes that crops grown without manure may exhibit vegetative growth but fail to produce adequate grain (*vinā sāreṇa yad dhānyaṃ vardhate phala-varjitam*, Verse 111).

The preparation and application of manure are described in a systematic manner. Cow dung, regarded as the primary form of manure, was to be collected during the month of Māgha, dried in sunlight, powdered, and preserved. In the month of Phālguna, it was to be stored in pits within the fields and later applied during sowing.

These procedures demonstrate an understanding of soil fertility management and the preservation of nutrient value. As noted by Lallanji Gopal, such references indicate an awareness of the fertilizing properties of organic matter and methods for enhancing its effectiveness[10].

Agricultural Rites and Ceremonies

Agricultural practices in early India were closely intertwined with ritual observances. The *Kṛṣhiparāśara* underscores the role of religious ceremonies in safeguarding crops from natural adversities and ensuring agricultural prosperity.

One such ritual, performed on the first day of *Kārtika* (*Laguda-pratipat*), involved anointing the horns of cattle with oil and turmeric and tying *śyāmalatā* creepers, followed by their ceremonial worship (Verse 99). Another significant observance, *Go-parva*, was intended to ensure the health and protection of cattle for an entire year (*sarvā gojātayaḥ… nanā-vyādhi-vinir-muktā varṣam ekaṃ na saṃśayaḥ*, Verse 104).

Parāśara also prescribes the ritual of *Hala-prasāraṇa*—the ceremonial use of the plough—to ensure agricultural abundance (*hala-prasāraṇaṃ kāryaṃ… śasya-vṛddhaye*, Verses 121–140). This ceremony, typically performed at the beginning of the agricultural season on auspicious days such as Monday, Wednesday, Thursday, or Friday, involves ritual purification, offerings, and worship of deities including the Earth, planets, Pṛthu, Prajāpati, and Indra, whose blessings were believed to bring sufficient rainfall.

[10]PushpaNiyogi, Agrarian and Fiscal of Eastern India, p.127

GYANBODH
An International Multidisciplinary Peer Reviewed Journal
ISSN:3048-9792
Volume: 3
Issue: 3
May - June: 2026

Another important rite is *Muṣṭi-grahaṇaṃ* (Verses 206–213), performed in the month of *Agrahāyaṇa.* In this ritual, farmers ceremonially harvest a small quantity of paddy from the northeastern corner of the field, worship it, and carry it home in silence for further ritual observance. Compliance with this rite is considered essential for agricultural success, while neglect is believed to result in repeated failure (*pade pade viphalatā tasya dhānyam kuto gṛhe*, Verse 211).

The text also describes the *Puṣya Yātrā* (Verses 221–236), a communal festival held in the month of Pauṣa prior to the harvest season. On this occasion, people gather near the fields, dress in new clothes, adorn themselves with flowers and fragrant substances, and celebrate with music and feasting provided by the landowner. The gathering concludes with prayers to the Sun for agricultural prosperity, social well-being, and the growth of cattle. Participants are advised to observe dietary restraint for the remainder of the day.

Through these detailed prescriptions, Parāśara highlights the strong belief in divine intervention among ancient farmers. Such rituals were thought to help mitigate challenges such as drought, floods, and crop damage caused by pests and natural forces, thereby ensuring a successful harvest.

Astronomy and Seasonal Knowledge

The *Kṛṣhiparāśara* also reflects the integration of astronomy with agriculture. It explains how early Indian scholars predicted rainfall on monthly, annual, and immediate bases, often linking weather patterns to planetary positions and assigning celestial roles such as “king” or “minister” of the year. This indicates that astronomical knowledge was largely preserved by Brāhmaṇas, upon whom the general population depended for weather forecasting[11].

Furthermore, references in epigraphically sources indicate the recognition of six seasons in ancient India—*Vasanta* (spring), *Grīṣma* (summer), *Śarad* (autumn), *Hemanta* (early winter), and *Śiśira* (late winter)—demonstrating a sophisticated understanding of seasonal cycles essential for agricultural planning.

[11]EI, XX No.13,1.5

GYANBODH
An International Multidisciplinary Peer Reviewed Journal
ISSN:3048-9792
Volume: 3
Issue: 3
May - June: 2026

Harvesting and Storage

The concluding sections of the *Kṛṣhiparāśara* provide detailed instructions on harvesting and post-harvest management. Crops are to be harvested at the proper stage of maturity to ensure maximum yield and quality.

The text further outlines processes such as threshing, measurement, and storage of grains. These practices were designed to prevent spoilage and minimize losses, thereby ensuring long-term preservation of agricultural produce.

From a historical perspective, these systematic approaches indicate a well-developed understanding of post-harvest management and resource conservation in early Indian agriculture.

Relevance to Modern Agriculture

Several agricultural practices described in the *Kṛṣhiparāśara* continue to hold relevance in contemporary contexts. The text advocates environmentally sustainable methods that closely align with modern ecological agriculture. These include:

- Use of natural and organic farming techniques
- Maintenance of soil fertility through organic manure
- Efficient management of water resources
- Adoption of ecological methods for pest control
- Integration of livestock within farming systems

Modern sustainable agriculture seeks to balance productivity with environmental conservation. In this regard, traditional knowledge systems such as the *Kṛṣhiparāśara* offer valuable insights for developing resilient and sustainable agricultural models.

Conclusion

The development of agriculture in early medieval India is reflected in technical treatises such as the *Kṛṣhiparāśara*, which occupies a significant place in the history of Indian agronomy. The text is generally dated to around the eleventh century and appears to reflect the agricultural conditions of eastern India, particularly regions such as Bihar and Bengal[12] .

Linguistic evidence further supports this regional association, as several terms used in the text—such as *paccānī* (goad) and *madikā* (harrow)—show affinities with Bengali vocabulary.

[12]Gopal, The Economic Life of Northern India, p.301

GYANBODH
An International Multidisciplinary Peer Reviewed Journal
ISSN:3048-9792
Volume: 3
Issue: 3
May - June: 2026

The treatise provides a comprehensive account of agricultural practices, including cultivation, ritual observances, harvesting, and storage. As noted by Ranabir Chakravarti, such works represent an advanced stage in the development of agricultural technology in early medieval India[13]

Thus, the *Kṛṣhiparāśara* emerges as an important historical source for understanding the evolution of agricultural knowledge in early India. It not only documents practical farming techniques but also illustrates the integration of ecological awareness, empirical observation, and cultural practices in shaping agrarian life.

References

Chakravarti, Ranabir. (2008). *Agricultural Technology in Early Medieval India (c. A.D. 500–1300)*. New Delhi: Oxford University Press.

Chauhan, G. C. (2003). *Economic History of Early Medieval Northern India*. New Delhi: Atlantic Publishers & Distributors.

Furui, Ryosuke. "The Rural World of an Agricultural Text: A Study of the *Kṛṣhiparāśara*." In *Studies in Early Indian History*, 150–171. New Delhi: Sage Publications.

Gopal, Lallanji. (1980). *Aspects of the History of Agriculture in Ancient India*. Varanasi: Bharati Prakashan.

--- *The Economic Life of Northern India, c. A.D. 700–1200*. New Delhi: Motilal Banarsidass, 2013.

Gopal, Lallanji, and V. S. Srivastava, Eds. (2008). *A History of Agriculture in India, Vol. I*. New Delhi: MunshiramManoharlal Publishers.

[13]Ranabir Chakravarti, *Agricultural Technology in Early Medieval India (c. A.D. 500–1300)* (New Delhi: Oxford University Press, 2008), 232.

GYANBODH
An International Multidisciplinary Peer Reviewed Journal
ISSN:3048-9792
Volume: 3
Issue: 3
May - June: 2026

Khandelwal, S. K., and S. L. Choudhary, trans. (2011). *Krishi Parāśara*.Udham Singh Nagar: Asian Agri- History Foundation.

Majumdar, GirijaPrasanna, and Sures Chandra Banerji, trans. (1960). *Kṛṣi-Parāśara*. Calcutta: The Asiatic Society.

Niyogi, Pushpa. (1967). *Contribution to the Economic History of Northern India*.Calcutta.

--- *Agrarian and Fiscal Economy of Eastern India*. New Delhi: Mahabodhi Book Agency, 2012.

Pandey, Ramchander. (2002).*Kṛṣi-Parāśara*. Delhi: Motilal Banarsidass.

Randhawa, M. S. (1980). *History of Agriculture in India, Vol. I*. New Delhi: Indian Council of Agricultural Research.

Sadhale, Nalini, trans.(1999). *Kṛṣi-Parāśara*. Secunderabad: Asian Agri-History Foundation.

Thapar, Romila. (2002) *Early India: From the Origins to AD 1300*. Haryana: Penguin Books.