

Horticulture in Vedic Civilization: A Perspective on Vegetable Seed Conservation

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Abstract

It has been universally acknowledged that the Veda is the earliest available literature of human civilization meaning to knowledge. Vedic agricultural production system works in harmony with nature, sustains the health of soils, ecosystems and people. This paper simply tries to present the agricultural wisdom expressed in different Vedic literatures and its relevancy in the present context with reference to vegetable seed conservation. The importance of seed in crop production is known to human being from the very beginning of Vedic civilization (युनक्त सीरा वि युगा तनुध्वं कृते योनौ वपतेह वीजम् । गिरा च श्रुष्टिः सभरा असन् नो तेदीय इत् सृण्यः पक्वमेयात् ॥ (ऋग्वेद) (Vaidik Sukta Sangraha, 2020). Vedic civilization inspires to use local knowledge and skills derived from experienced practices from generation to generation seed system management. Over thousands of years of Vedic civilization, farmers have developed a variety of seed management practices that continue to exist in Nepal currently. Due attention needs to be given to value and respect the Vedic wisdom of vegetable seed conservation practices supported by further research and development.

Keywords: Conservation, Horticulture, Vedic, Vegetable seed

Introduction

Going by the Vedic literature, it is quite evident that agriculture sector was the key source for livelihoods of the people (कृषिमूलं हि जीवनम् । ऋग्वेद). Vedic civilization has been contributing in the field of agriculture biodiversity conservation since ancient times. The agriculture awareness of Vedic seers, right from the Vedic periods, was remarkable and praiseworthy as Agriculture has been treated as source of prosperity and sustenance (कृषिमित्कृषस्वा वित्ते रमस्व बहु मान्यमानः ॥ ऋग्वेद) (Vaidik Sukta Sangraha, 2020). Vedic wisdom continued from the time immemorial which arose in the course of many centuries and has been extended and handed over one generation to another by verbal communication initially.

Vedic civilization inspires to use local knowledge and skills derived from experienced practices from generation to generation such as maintenance of home garden in their yard having different fruits, vegetables and medicinal plants with watershed management practices. Nepal is considered one of the most biologically diverse and culturally rich countries in the world. Many Vedic literatures have well mentioned the importance of agricultural practices in Nepal.

(काश्मीरदेशके वङ्गदेशे नेपाल देशके । पञ्चाल कोसलकुरु विराटान्वय भूमिके ॥
मालवे शकदेशे वा सिन्धु सौविर भूमिषु । शुरसेना वान्ति चेदिकोङ्कणान्धादि भूमिषु ॥
यदा यदा वृष्टिपात स्तदा शस्ता कृषि क्रिया । (काश्यपीयकृषिपद्धति)

Almost all Nepalese cultures have something to offer to conserve bio-diversity including seed conservation and utilization. Vedic culture has respect for vegetable seed conservation which is reflected in several of its scriptures, texts and followed through rituals and practices.

Methodology

This paper is based on review of Vedic literatures. The information for this study is derived from the review of seed conservation related Vedic literatures supplemented by the experiences of authors working in Nepal as a follower of Vedic civilization.

Result and Discussion

1. Vedic farming system and and culture of vegetable seed conservation

Agriculture, animal husbandry and fruit based agroforestry are the major components of integrated farming system in Vedic civilization as mentioned in the different literatures. Vedic culture has attached great respect to natural elements including earth. Integrated farming system with due respect of ecology and ecological balance is the major approach of agriculture.

All ancient knowledge and wisdom related to development of Vedic science of vegetables is well described in Vedas (Rigveda, Yajurveda, Atharvaveda) and other Vedic literatures specially in KrishiParashar, Sathapath Brahmana, Kashyapiyakrishipaddati and Vrikshayurveda

Vedic literatures clearly mention that agriculture was considered prestigious among all occupations (कृषेऽन्यत्र नो धर्मो न लाभः कृषितोऽन्यतः । न सुखं कृषितोऽन्यत्र यदि धर्मेण कर्षति ॥) (Shastri, 2017). Different dimensions of agriculture are expressed in Vedic literature very strongly. As food is the basic need of human being and for which a developed agricultural system is most essential (अन्नो वै प्राण । वेद) (Juganu, 2013). Vedic seers have also given top priority of food crops production= All creatures -life_ come into being from Anna -food_, and this food arises with the help of rain= Through yagyas we get rain, thus yagya gives rise to activity or karma (अन्नाद्भवन्ति भूतानि पर्जन्यादन्नसंभवः । यज्ञाद्भवति पर्जन्यो यज्ञः कर्मसमुद्भवः) ॥ (Ramsukhadadas, 2022).

Kashyapiyakrishipaddati is an excellent text on vedic agriculture covering various aspects of vegetable specially brinjal (वार्तक), pointed gourd (पटालिका), pumpkin (कुष्माण्डक), coriander -धान्याकम्), cucumber (उर्वाकम्), chilli (मरिचिका), Black pepper (मरिच), ginger (अदरक कन्द) and turmeric (पीतबालुका) and Leafy vegetables (शाक) (Juganu, 2013).

Over thousands of years of Vedic civilization, farmers have developed a variety of seed management practices that continue to exist in Nepal currently. Seed supply system has been maintained by farmers producing and conserving their own seeds for subsequent planting and exchanging with other farmers and relatives. The Vedic literatures mention that farmers plant, select, maintain purity, store, use and exchange seed of farmer-preferred cultivars over generations for their livelihoods (बीजस्य पुटिकां कृत्वा विधान्यं तत्र शोधयत् । बीजं विधान्यसमिश्रं फलहानिकरं परम् ॥ एकरूपं तु यद्बीजं फलं फलती निर्भरम् । एकरूपं प्रयत्नेन तस्माद्बीजं समाचरेत् ॥ (कृषिपराशर) (Shastri, 2017).

From the very beginning of Vedic civilization, human societies developed various institutional mechanisms, customs and religious beliefs to conserve, protect and promote their natural resources including vegetable seed. Farming communities have also identified, protect and managed seeds through selection and cross breeding as described in literatures time (बीजसंरक्षणं कार्यं कृषि कर्म विशारदेः ।) Over thousands of years of Vedic civilization, the government used to support the farmers for seed supply management. Conservation for seed sovereignty followed by food sovereignty and national sovereignty is considered very important. Support for conservation and seed system management is the duty of King+government as mentioned in Kashyapiyakrishipaddati (Juganu, 2013)

भूपाल रथवा रक्ष्यं काले देयं प्रकृतिर्तितम् । बीजराशीः परश्रेयः कृषेस्तु प्रथमं धनम्

तदादिलोके सर्वत्र बीजानि विविधानि तु । रक्ष्यन्ते कृषिकर्मज्ञैः मानवैः सूक्ष्मबुद्धिभिः ॥ (कश्यपीयकृषिपद्धति)

The rituals and spiritual ceremonies of Vedic civilization play vital role for conservation of plant species including vegetable seed. We can take the example of the Bala Chaturdashi festival, generally lies on the month of Mangsir i.e., the starting of the winter season in Nepal. In the Nepalese term, it is pronounced as Satbij chharne din, where the hundred kinds of cereals, vegetable and fruit seed are mixed and sowed to the jungles and field nearby different Shiva temples. It has a great message that the ancient people developed many effective measures to safeguard our seed systems which reflect sustainable agriculture biodiversity conservation (Kaphle, 2023 et.al.,)

Ecology is mainly concerned with the interrelation of living organism with their environment. Bhumishukta of Atharvaveda is one of the important source of ancient wisdom on the relation of human being to his environment and his duty is to conserve it= Some mantras illustrate the importance of Yajnas for rain, agriculture, air, environment, all living creatures and their interrelationship (कृषिश् च मे वृष्टिश् च मे... औद्भिद्यं च मे यज्ञेन कल्पन्ताम् ॥ (Vaidik Sukta Sangraha, २०२०).

The major agricultural practices described in Vedic literatures are soil and land management with village settlement, integrated farming system with due consideration of ecology, crop cultivation inclusive of plant protection measures and agricultural technology, irrigation system management, animal husbandry, agroforestry management and meteorological observation in relation to farming system.

Methods of farming have also been discussed in Vedic literatures. There is some sort of similarity between method of farming mentioned in Atharvaveda and modern method. In sathapatha brahmana, a vedic texts, the whole process of farming has been described in four word-Karsana (preparation of the field), Vapana (Sowing seeds), Lavana (Reaping the harvest) and Mardan (Threshing). Ploughing was regarded as an important process in cultivation. Prayers were offered for the ploughshare to plough the field properly and for tillers to practice properly (शुनं सुफला वि तुदन्तु भूमिं शुनं कीनाशा अनु यन्तु वाहान् ।) (Vaidik Sukta Sangraha, 2020). Cultivation of a wide range of cereals, vegetables, and fruits was common, and animal husbandry was the important means for their livelihoods.

Nepal is rich in religious, cultural, ethnic and biological diversity. Even now, in Nepal these components are well integrated in the farming system in Nepal. The farming system of Nepalese agriculture varies according to the agro ecological zones. However, integrated farming system, having agriculture, animal husbandry and agroforestry are the major components, is prevalent even now.

As we find in Vedic literatures, cultivation of a wide range of cereals, vegetables, and fruits was common, and animal husbandry was the important means for their livelihood. There was belief that those farmers who are near to nature they must be remarkably close to God= The importance of seeds was emphasized and a certain sequence of cropping was recommended and the practice of preparation of manure by the cow dung for irrigation was common during this time (भूपालैरथवा रक्ष्यं काले देयं प्रकीर्तितम् ।वीजराशिः परश्रेयः कृषेस्तु प्रथमं धनम् ॥) (Juganu, 2013)

From the very beginning of Vedic civilization, human societies developed various institutional mechanisms, customs and religious beliefs to conserve, protect and promote their natural resources including biodiversity. Currently these knowledge is called indigenous knowledge. Farming communities have also identified and managed a series of genes through selection and cross breeding as described in literatures (बीजनामपि चैनेषामातपे शोषितात्मानाम् ।रक्षणं चैव मादिष्टमुत्त मैस्तु कृषीवलैः) ॥ (Juganu, 2013)

2. Vegetable seed conservation through karmakanda and rituals

The ancient wisdom, based on experiences and knowledge, recorded in Vedic literatures have been transferred to us over several thousand years in the form of karmakanda and rituals. Karmakanda expressed in the Vedic texts relate directly to the day-to-day life of the people, governing the social, religious, and spiritual rituals performed by people. It is believed that karmakanda includes rituals, ceremonies and actions, which, when performed, lead to bring prosperity in human life. Vedic pandits and priests were most informative and played the key role for extension of knowledge and experiences through karmakanda. For this, ancient education institutions especially Gurukul also played important role for dissemination of ancient wisdom of karmakanda to the students practically. Farmers are suggested to follow rituals to be performed as per suggestion of Vedic texts from preparing land for sowing to the ritual for storing the harvest (Kaphle *et al.*, 2023)

The relationship between Vedic culture and ecology is the integral part of ancient Nepalese societies too. Diversified community in Nepal used many local knowledge and skills derived from experienced practices from generation to generation such as maintenance of home garden in their yard having different fruits and medicinal plants, watershed management practices having a belief that they should not cut plants surrounding the source of water, water harvesting and conservation making groundwater recharge pond and grazing land (Gaucharan) protection specially for cow. Besides, use of cow dung and urine-based fertilizer to enhance microorganism diversity in soil for healthy food production. Therefore, Vedic culture can be understood as a holistic model that inspires a reconnection of humans with nature and provides one of the best models for agricultural biodiversity conservation (Kaphle *et al.*, 2022)

Relations with diverse biological entities and concern for their conservation remained important components in the structure of ancient civilizations of Nepal which is still followed. We can take the example of the Bala Chaturdashi festival, generally lies on the month of Mangsir i.e. the starting of the winter season in Nepal. It is also called the day of sowing different grain seeds. In the Nepalese term, it is pronounced as Satbij chharne din, where the hundred kinds of cereals, vegetable and fruit seed are mixed and sowed to the jungles and field nearby different Shiva temples. It has a great message that the ancient people developed many effective measures to safeguard our seed systems which reflect sustainable agriculture biodiversity conservation. Thus, Karmakanda and rituals have a great role in agriculture seed conservation as these inspire people to follow the agricultural conservation activities in sequence creating awareness (Kaphle *et al.*, 2023).

Conclusion

Overall study revealed that Vedic civilization has been contributing in the field of vegetable seed conservation since ancient times. This paper has just presented the agricultural wisdom expressed in different Vedic literatures with

reference to vegetable seed conservation. It has a deep respect for biodiversity which is reflected in several Vedic literatures and followed through daily rituals and practices. The Vedic knowledge could form the very potential basis for modern agricultural science. Finally, it can be concluded that Vedic traditions and wisdom have often paved the way for further research in the field of vegetable seed conservation.

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